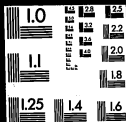


CENTIMETERS



# 14:1

# Thomas A Edison Papers

## A SELECTIVE MICROFILM EDITION PART V (1911-1919)

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**START**

**233**

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**NOTEBOOK SERIES  
NOTEBOOKS BY EDISON  
AND OTHER EXPERIMENTERS**

**Notebook Series -- Notebooks by Edison and Other Experimenters  
Disc Record Book No. 2  
Notebook, N-16-01-18**

This notebook was used by Edison in January 1916 for notes on experiments to improve the composition of disc record blanks and the varnish surfaces applied during the transfer process. The experiments involve the use of different ingredients in various proportions, as well as variations in the dipping and baking processes. Also included is a list of "soft solids" for use in record blanks, with the observation that it should take "at least 100 mins [for] 3cc to evaporate from hot plate." The front cover is labeled "1916 #2 Disc Experiments 1-18-16." The pages are unnumbered. Only 10 pages have been used.



1-18-16

Present time of dipping in solution  
is fairly satisfactory

Dipping in + out quickly 480 blanks  
60% OK after transfer

Dipping and holding in varnish  
6 minutes -  
64%

Not enough difference to gather  
with,

---

Thin Varnish 719 - Req blanks  
Req Var 30 cc

Very rough surfaces and  
loud run outs -

45 cc is minimum should  
be 50 to 55 am testing

Putting 10 Bird cages aside to dry  
10 Hours no apparent gain over  
present method -

10% Amyl acetate in reg varnish  
seems to improve surface & RO of  
~~that~~ 100% Trans + Pnt but noticed  
one of transfer veneer plates cracked  
in 24 hours

Phenomenon about this varnish  
is that its jet black from the Negroon  
opaque to transmitted light while  
Reg is red & transparent  
See E4-101 Book.

Moore found 3 old 4 to 1 Condensate  
blanks, Printed on trucked moulds  
Very good surface. No RO greater  
than 5 - 5 surfaces marked fine  
1 marked good.

If extra phenol is left out + 8 6/4  
used, 5% Naphthalene used  
the Veneer raises from plates  
bad in 6/2W whereas 7 6/4  
in duplicate does not raise up  
In both experiments the plates

Are very even ∴ is this due  
to Naphthalene or no excess phenol

Unbaked dipped blanks pressed  
in transfer presses + then printed on  
tracked moulds. gives in 18 surfaces

16 Rough + 2 fair  
9 RO less than 4

Duplicate Expt but dipped blanks  
Baked.  
gave with 8 surfaces no RO -  
Surfaces not recorded being too rough

No 1 Copal acts like Sandarac  
33% of C to the resin used  
Veneer left the plates

Transfers + Prints  
100% -

Transfers 100%  
Prints 6 50K 1 Cracked

1-15-16

5 Wood 2 Chalk 1 Lac is a much better blank than regular now being used, get 100% Transfers + Prints

27 surfaces with some bad tracked moulds get 17 RO better than 4 4 fine surfaces

{ A Duplicate of 5 Wood 2 Chlk 1 Lac 14 surfaces gave for RO 8 lower 57% than 4 + 11 fine surfaces ← 90% the bad tracked mould not used in this test like the above test,

{ This blank is very good Weld good Edges fair Only trouble is RO should be reduced

{ With 4 Wood 3 Chalk 1 Lac 13 surfaces gives for RO 7 better than 4 <sup>46%</sup> fine = 70%

{ Edges crumbly Welds good Thick blank may do better when thinner probably want increase of Lac as % Chalk goes up

Specially picked wrinkled  
Van plates picked show RO  
due to them but as blank  
gets harder they are  
evidently pressed out,  
Wants hard non springy  
blank to stop this evil

Shellac as a dipping  
Varnish welds fair but not  
good enough

Old ground blank no matter  
how used roughens surface  
& goes worse run out

2 Wood 5 Chalk 1 Lac  
12 surfaces gives 10 RO better  
than 4- & better than 5  
11 fine surfaces -  
Edges crumble out - Blank not  
giving it makes poor prints  
Crack Var in transfer  
Why - think blank dont contract

1 Wood 6 Chalk all transfer  
Crack Var - face weld pulls off  
1/32" - wants more shellac

5 Wood 2 Charcoal 1 Lac  
13 surfaces RO 5 better than 4  
surfaces no fine -  
Very light blank - quite thick  
Welds very good & dipped -  
100% T+PT 1/4 of whole number  
of blanks broken out.

4 Wood 3 Charcoal 1 Lac  
6 surfaces - 4 better than 5 for RO  
fine surf 5 Transfer 11-7 cracks

3 Wood 4 Chances at 1 Lac  
12 Surfaces 6 no RO 3 more better  
for RO than 4 — 6 fine surfaces  
Edges mealy - Welds good,  $\frac{1}{2}$   
blank separates  $\frac{3}{8}$  thick  
Too dry Evidently, we can't shellac  
12 Transf 5 arks Prints 4 chd  
2 Chipped Cords

If  $\frac{1}{3}$  of the Resin is replaced  
by gum Dammar, The Veneer  
acts even worse than Cresol  
Varnish - Cracked in hundreds  
of pieces all free from the  
plate - Contraction of Dammar  
must be very great,  
whereas Copal comes off entirely  
not cracked,

This shows no solid should be  
used which has big contraction  
~~the~~ NO! Copal probably has  
just enough Contraction to free it  
from plate but no enough to  
Crack Varnish.

Canada Balsam has been on  
hot plate for 12 hours + practically  
all of it remain -  
Eugenol been on 8 hours -  $\frac{1}{3}$  gone  
Monochlorohydrin  $8\frac{1}{2}$  "  $\frac{1}{2}$  gone

I think the only safe things to put in  
is soft solids but preferable  
Something that takes at least  
100 mins 3 cc to evaporate  
from hot plate. if sol in alcohol  
Such as

Cedar Wood oil -  
Iso Eugenol  
Eugenol.  
Phenylhydrazin  
Xylidin  
Rosin -  
Monochlorohydrin  
Canada Balsam



Reg Var having 16% free phenol in resin  
+ 6 added using 8  $\frac{1}{4}$

Equals -

8. 2.77 free phenol 1%  $\frac{1}{4}$   
When only free phenol of resin is used + none  
added + use 8%  $\frac{1}{4}$

8%	2 free phenol	To 1% $\frac{1}{4}$
7	2.28 "	" "
6	2.66 "	" "

Wear tests should be made on this  
8% lifts on plates

**Notebook Series -- Notebooks by Edison and Other Experimenters  
Disc Record Book No. 3  
Notebook, N-16-01-20**

This notebook is a continuation of N-15-12-29. It was used by Edison in January 1916 for notes on experiments to improve the composition of disc record blanks and the varnish surfaces applied during the transfer process. One entry at the beginning of the book, entitled "old book notes," contains information from earlier notebooks. Subsequent entries describe a sequence of experiments numbered from 58E to 139E in which the ingredients for record blanks and record varnishes are varied. Many entries include a summary of results, usually giving a tally of acceptable and unacceptable record surfaces obtained. Some of Edison's notes are in the form of instructions to Archie D. Hoffman, Sherwood T. (Sam) Moore, or other employees. The front cover is labeled "1916 #3 58E Disc Expmts." The pages are unnumbered. Approximately 160 pages have been used.

Anhydrous Alcohol to even high proof alcohol Cant be used for Varnish plates as the 6/4 will not dissolve in it —

Boiling Absolute Alcohol dissolves Considerable 6/4  
But Boiling Absolute Benzyl Amyl Alcohol dissolves scarcely any

Hot Carbolic dissolves some 6/4

Old note book says Camphor Oil dissolves oil of asphalt Carbon tetrachloride cuts of Varnish —  
But Benzyl works ok

1-20-16

Dimidde's Experiments on Expansion & Contraction of Reg Condensed Varnish from Gomers.

	Contracts	Per degree
192° Fahr	.0345	} 001
175	.0329	
150	.0320	00036
127	.0309	00047
100	.0299	00037
78	.0295	00017

Varnish takes permanent set as low as 125° @ 130 with only 10 grams load to 1/8 inch strip 2 1/2 inches long  
But Time must be allowed

On cooling the stretch is greater than the contraction from 135° to 121° after this it contracts .0006 in 2 1/2 inches when its 100° after 13 minutes more  
The tensile strength at 100° Fahr is enormous.  
Above 200° its a rotten jelly

New alcohol only used in plate Varnish's Recovered used in powder

Old book notes -

Dehydrated Condensite Resin dehydrated  
higher than Reg when diluted with  
50% more alcohol is very light red  
& it filters very very slow totally -  
unlike Reg - When wood alcohol is  
used it filters ok & fast

Will have to filter hot vac filter, or  
filter press hot or find something  
Volatile the assist Ethyl to dissolve  
but not to be dangerous to our  
people -

2 1/2 inch discs - in lab 50 lbs  
pressure in lbs on gauge is same  
as disc pressure per sq in

100 Chalk 33 cc powder Varnish  
mixed well & dried -

Rather hard cut little hard fine surface  
don't think it will stand wrapping  
Not enough Shellac yet,

I diluted regular Varnish with  
alcohol 1 Var 2 Extra Alcohol  
poured in 3 butter dishes, dried fine  
but even when heated very slow  
on hot plate the bubbles were  
terrible. This proves I think that

our bubbles which come in baking  
are due to low proof alcohol  
Not certain of this?

We must treat our recovered alcohol  
Some way

1-20-16

cut

58E

2 Wood 5 Chalk

2  $\frac{1}{4}$  dac

make blank with  
Regular schedule informal  
press

Blank dont give any  
where get pressure on transfer  
blank get good weld -  
yet its practically like the  
others that do give & give  
high % for instance 48

59E-13

1/8 scrape off lot 757 -  
51 - 38 OK 13 dis pull out mostly

gent

59E

2 wood 5 chalk

2 1/2 lac -

Make blanks with regular  
schedule in final process

Moulded small piece 100 lb pressure no strike off  
128 blanks 95 Discards 33 OK discards  
all pull out  
Too much shellac or too much heat

From 12 all discards:  
2 ckd var 5 Cooked var  
5 Left ckd

Reg var -

Scrape off  
5

→ blank

This is  
~~strange~~

3/8 thick very thick

B  
 RO fine III  
 1  
 2 II  
 3 good III  
 4 III  
 5 I  
 6 I  
 none III  
 Welds above  
 2  
 3  
 4  
 5  
 6  
 none III  
 fair  
 Prof I

This powder was ground  
 + dried again -

Tests show that powder  
 even when cakes  
 only has 0.6% moisture

standing all night  
 expected to now goes to  
 1.84% moisture

60E

sent

2 Wood 5 Chalk

2  $\frac{1}{4}$  Lac -

But press in 3 lots  
 on final press where  
 blanks are made

500 700 + 800 lbs  
 instead of the 1000 you  
 now use

B Transf 12-12 OK Print 6 OK

A no test

A 500-

RO	Grade	Notes
1	fine III	
2	good III	
3		
4	fair	
5 II		
6 III I		
None III	Ruff III I	Overdone, like 20's

A = welds good - Edges fair to good

RO	Grade	Notes
1	fine III	
2	good III	
3 I		
4 I	fair	
5		
6		
None III	Ruff	Badly finished - plastic in face

61 B - 10444 - wire like parts, leaves moulds cloudy & gritty

C, 8,

RO	Grade	Notes
1	fine III	
2 I	good III	
3		
4 I	fair	
5		
6 I		
None III	Ruff	Edges faint out

61 E Mistake was made by man  
Pelt

2 Wood 5 chack

2 1/2 sac ~~Notes~~

But press in final press  
Plank press at 3 def  
pressure 500 700 + 800  
lbs instead of the  
reg 1000 lbs -

Moulded A 35 at 500 lbs }  
" B 35 700 } on small press  
" C 36 800 } by mistake  
all 1000 on large press should have been

A = 500 - Transp Reg Van dipped  
B = 700 - Transp "  
C = 800 - Reg Van  
SA

done in final press  
12 70K 5 diff  
2 into margin 2nd  
Print 6-OK -  
12 I 30K 2 left  
6 thin in  
Print 3 70K 3 print  
12 Trans 3 OK 6 left  
Comy - 2 pullout 16cm  
Print 30 20K 1 print



A - 12 12 OK 6 Print all ok

RO	Fine IIII
1	
2	good II
3	
4	fair I
5	
6	Ruff IIII
Norm III	

*2 edges long faint to faint  
and of 1/2 inch  
W 1/2 dia good  
W 1/2 dia good*

B Trans 12 40k 6 call left 2 under  
print 3 - 10k 2 pp.

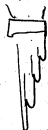
RO	Fine IIII
1	
2	good I
3	
4	fair I
5	
6	Ruff IIII
Norm III	

*Blank surface  
poor chalky full  
and clean fine  
sensitivity other 1/2  
blanks (norm)*

C 12 T 12 OK 6 Print 6 ok

RO	Fine IIII
1-1	
2	good IIII
3	
4	fair I
5	
6	Ruff IIII
Norm III	

*W 1/2 dia 1/2  
W 1/2 dia 1/2  
W 1/2 dia 1/2  
W 1/2 dia 1/2*



Note Big run out in C 1/2 Blank shows  
red all over block, hundreds of little dent  
Shows on red more on block, gas out of vacuum  
pick off in run then this lot, as it is clearly not  
welded HERE IS A CUE

62E

rcwt

2 wood 5 Chalk  
2 lac 1/4 Condensate in  
form of dipping Varnish -

1/3 500 lbs 1/3 400 lbs  
1/3 Reg schedule  
1000 lbs -

Moulded 100 lbs press on small press no strike off  
500 lbs on large press 36 blanks 100%  
700 " " " 91.6%  
1000 " " " 94.4%  
Moulded by Mistake in small  
instead of the large press

63E

rent

2 wood 5 Chalk

2<sup>3</sup> Shellac

1/5 Condensate in form  
of Dipping Varnish -

~~No test~~

63 E-C

No prints or transfers -

All plates lifted in the Oven  
+ all cracked

Oil separates out in  
Condensate, gives mottled  
appearance

True Segregation NG

We shall have to be  
careful about purity  
of our Varnish

Brattle

Van No 231 Spikes Indicate from  
rim - plates OK -  
Room 53 - Van 65

Oven 35 all discarded  
28 diff up from plates  
7 Reused

64E

Plant

Varnish

1/2 gallon

Use 5% of Oil Cedar  
wood, of the Resin

plates to be used on

1293 Blank

12 Transfers  
6 prints

All lifted free from plate  
+ most cracked

Porillo, Oil segregated

79

Van - spokes radiate from rim  
shows oily streaks no patch  
plate - flamed on new buffed plate, OK

Room 87 Van 70

Oven 34 - all dis  
8 left up from plates  
26 Raised

65 E

sent

$\frac{1}{2}$  Gallon Varnish

Dup of 64 E but use  
10% Cedar Wood Oil

Use 1293 blank  
12 Transfers  
6 prints

Photo  
Hornlike Bubbles -  
+ large - all over -  
No Test,

Var spokes radiate from rim  
Shows fine mottle, when drying  
out very fine bubbles show up don't  
look good Room 85 Var 70°

Oven 34 - all discarded  
34 - Bubbles -

66E

rest

$\frac{1}{2}$  gallon Varnish  
Use 5% of Phenylhydrazin

Use 1293 black

Make 12 Tracings  
6 Prints

All horrible bubbles N9

No test -

Var Spokes radiate from rim fine  
bubbles appear when drying out  
From 85° Var 70 N9. -

Oven 38 - all discarded for bubbles

67E

Sent

$\frac{1}{2}$  gal Varnish

Use 10% phenylhydrazin

Use 1293 blank

Transfer 12  
Print 6

RO

1

2 I

3 II

4 II

5 II

6 II

None III 7

June III 5

good III

fair II

Ref

68E

Van Apster radiate  
from rim - Malleo  
has good body plates  
good shows only streak  
Rim 85 Van 65

Shows ~~too~~ Engenral no hurt  
or gain -

Oven - 35 - 25 OK

Raised 5 -  
Cracked 5 -

good with

Edges fair -

68E = B Iso Eugenal - Van works good  
plates good Van OK -  
Rim 90 - Van 75 -  
Welds good

RO II

2 II

3 III

4 III

5 III

6

non 1

fine III

good III

fair I

Ref

68E

sent

1/2 Gallon Van

Use 5% Engenal

Use 1293 blank Reg 5

Transfer 12  
Print 6

11 12 Trans 12 OK

6 Prints OK

34 plates flowed

Baked 34 Baked 33 OK 1 Dis Cracked  
all look wormy Even plates

68E = B Iso Eugenal

1293 blank

10 Trans 10 OK -

6 Prints OK 2 poor print

wormy Van works good plates

perfect OK in every respect

Bake 35 - 5 Raised 5 Cracked 25 OK

note Cracked + bad RO

ROI

1  
2 ||  
3 |  
4 |||  
5 |||  
6 |||

now 1 5

fine ||| 5

good |||

fair |

Ref |

Oven 37-35 OK

Bubbles 2

Very Even

B

ROI good fine ||| |||

1-1 |||

2 |

3 |

4 |

5 ||

6 ||

now ||

fine ||| |||

good ||

fair |||

Ref ||

~~Welds~~ good

Edges fair

69E Van Matted, spikes, only a break dent  
look good - plates good Room 85° Van 70

69B Van works good - plates even - dent  
Creep or break Room 90 Van 73  
oven - all wormy even - 37 1 bubble 9 Rained  
27 OK -

Most bad is due to wrinkles, poop or  
Crack in 1 of dies -

69E

sent

1 gallon Varnish  
Use 10% Engenal -

Use 1293 blanks

Transfer 12

Print 47

12 Transfer 12 OK  
6 Print 6 OK

Oven - 37 baked 35 OK 2 bubbles  
Wormy all very even

69-E Iso Engenal -

10 Transfer OK 2 | pull out  
Print 4 OK 3 poop | mechanical

lost



RO  
1-III  
2-III  
3  
4-III  
5-III  
6  
None

Final III III 8

Good III

Fair

Ref-

Nothing in Balsam

Vari thin streaks thru center plates good  
Temp room 90° Vari 66'

Open 31-24 good  
Bubbles 1  
Rained 6

70 E

dent

1/2 yellow Vari

Use 5% Balsam Canada

Use 1293 blank

Transfer 12

Print 6

Transfers - 8 - 80k

6 prints 50k 1 print on microscope

Trans 4 - Reg Vok  
Print 3 - 1 ok 2 poor

1	fine
2	good
3	fair
4	
6	1
Now	Kuff - 1 1 1 1

The finest sample  
of RD + land

surfaces by Mottled The Condensate  
Cools down into the surface  
cavities of the blank

Most tremendous Mottled  
surfaces show, ~~at~~

Emery paper - takes fine  
off that each mottle  
is a round depression

Horrible surfaces

4 " RDals

71 E

5 Chalk 2 Asbestos  
from Johns I have it here  
not the Condensate Asbestos which  
isnt Asbestos -

2 Lac

Screen out the dark sand

from the Asbestos with a

40 mesh screen it will  
then turn white

Only want 20 or  
30 blanks of each

Kind

Would be small press 20 lbs pressure No strike off  
7 Blanks 4 pull out 3 broken

72 E

5 Chalk 1 asbestos

2 Lac

Moulded 20 lbs pressure no strike off -  
Made 6 = discards = 7 broken - 66.6%

No test,  
Worse matted,  
Very strange this

Investigate,

It may be asbestos balled up  
& didn't mix well -

73 E

5 Chalk 2 asbestos

$1\frac{1}{2}$  Lac

20 lbs pressure small piece No strike off -  
Made 6 - 17 make 833/0

No test horrible

Watts —

fine example

74

RO

1

2

3

4

5

6

non

fin

quad

four

Reef-

Has less  
Watts -

94E

5 Chalk 1 asbestos

1 lac -

20 lbs pressure small press No strike off  
Made 5 all OK 100%

Very strange

RO

1

2 III

3 II

4 I

5 III  
6 III

none

Find ~~W~~ 5

quad III II

fair

Ruff

Make wear test,

Van OK - works good, look good

Oven = look wormy / all even  
35 plates 1 large 4 small bubbles

Wear test,

100 turns OK  
250 Cut some - don't  
seem to hurt much at  
all - (and 600)

Another  
Speaker  
3291  
Narrow

~~about same color~~  
~~to better too~~

75E Varnish

Disp of 12 E except

5 1/2 6/4 added to surr.

Naphthalene put in

Print 12 Transfers on

1293 Blanks

Make 12 Transfers  
6 prints

Transfer 1293 blank

Trans 12 110R 1 ckd -

Print 6 - 4 ok 2 poor print on 110R

RO 1 <sup>marked for 2"</sup>

7um III III

Run wear test.

1 -

good III

2

3 1

4 11

fair

5 1

6 III

Ref

None 11

Edges fair

Wear test. 250 OK very little

Wear shows = ~~Run 70 wear~~

~~Some wear on edges~~

another speaker

no wear A 32191 -

A 19962 - <sup>Speaks</sup>  
not so good  
Center bubble

76 E

Drop of 12E

Except use  $5\frac{1}{4}$   $6\frac{1}{4}$

Keep Naphthalene the same

Use 1293 blanks

Transfer 12

Plates full hole - Print 6

Streaks Creeps 88% Feb Van 67

Oven all wormy - Very even



33-30 OK 3 bubbles -

12 Transfers 1293 blank 12 OK

Print 6 - 4 OK 2 poor p on Margin

As low as  $5\frac{1}{4}$   $6\frac{1}{4}$

In 16% phosphor green  
is OK for WEAR

several Cuckoo  
 P.O. 1  10 Run  
 2 quad || Wear test,  
 3 ||  
 4 | fan  
 5 |  
 6  8 Ruff

77E

Dup of 12 E  
 Except use 5 6/4  
 Same Naphthalene

Use 1293 Blank

Transfer 12  
 Print 6

Van creeps streaks Heavy Temp  $\approx 70^\circ$  Room  $88^\circ$   
 Oven - look wormy - Very even  
 35 - Bubbles 3 | 32OK

Transfer 1293 blanket rag sch

12  
1OK

7 pullouts 4 Birds, 1 chd Van  
 Note birds + pullouts comes with low 6/4



RO

1  
2  
3  
4  
5

Fine ② 2

good III III

Fine

Ref

③ III  
new III

10/90

78

Dup 12

But leave out the  
Naphthalene + use  
6 6/4 -

Works good - plates cover OK Room Temp 88°  
Van 74° -

Note improvement in flowing when  
Naphthalene left out -

Naphthalene like Camphor  
gives great movement on water  
Change surface tension -  
Nap bad

Over 33 plates 23 bubbles - 10 OK

Note leaving out Naphthalene Cause bubbles  
5 Transfers 5 OK  
5 Print 5 OK  
Will transfer + print the bubble plates -

50 gr Talc - 1 flock 50cc Var-mix very well  
dried all night ground + redried  
cluck to showed 25 grams  
4 drops 8" ft high - good  
surface fair - some little pitted.

Kieselgher 50 - 1 flock 50cc mix very  
dry & dried all night ground 12 gram wet  
cluck to showed 2nd time  
Broke 1st time - fine surface

50 gram China Clay 1 flock 50cc Var mix  
Dried all night ground + redried  
Wt 25 grams Mix very wet  
Very fine surface but lumps of fine powder  
ground + mix - broke 2nd

50 gram Oer slaked lime very even  
nice surface best looking of all  
50cc Var mix 1 gram flock  
Mix very wet dried all night  
ground + redried Wt 25 grams  
Broke 1st drop - needs work  
flock to cluck it -

Continued to near  
End of Book

1-21-16

Fred Oles Expts

50 Chalk 10 asbestos  
50 cc Reg powder Varnish -

Weights 25 gram - thickness OK

Dropped 4 ft on board  
floor Cracked fibres held it  
together.

50 Chalk  
10 asbestos  
40 cc powder lach  
5 ft drop Cracked

50 chalk  
20 asbestos  
60 cc 25 gram

Reg thickness  
Threw up twice 5 ft OK  
3rd time 7 ft Cracked

Fred's Exports

50 Chalk 1/2 Cottonflock 60cc powder  
Varnish  
Dropped 7 ft. 5 times  
still OK

50 Chalk 1 Cottonflock  
60cc Varnish  
Break 1st drop -

96E

Moors brat 11 RO records  
suspected from inspection dept  
It is going to dip a cement  
after dipping

1	RO-1	RO1
2	Big	Big
3	RO2	2
4	none	6-
5	RO4	4
6	none	none
7	RO1	2
8	RO3	4
9	RO2	3
10	Big	Big
11	RO3	2
12	RO2	5
13	RO4	4
14	none	6
15	RO5	4
16	RO2	3
17	RO5	3
18	RO6	4
19	Big	Big
20	Big	1
21	RO1	1
22	RO1	2

Dipping dotant diminish or  
change the RO -

79E

Too much lac

2 Wood 5 Chalk  $2\frac{3}{4}$  lac

Packs nice lot 443 unlike pasta  
game 22 leaves mould frosted

110 blanks 68 dis pull outs, 38%

U9

Notes

All dis cards in

Tranform  
too much lac

RO  
1  
2  
3  
4  
5  
6  
None

Edge bad Crumble  
somewhat

fine  
good  
fair  
Ref

agrees out pretty  
in Transmittance

80E

2 Wood 5 Chalk 2 Lac &

$\frac{1}{4}$  of Dipped blank Varnish  
mixed with Lac var

No adapter ring in big press

Lot 443 gauge 220

117 blank 2 dia pull out 98.2%

Mix like paste

Traps 12 1 ok 2 left end 1 thin narrow

3 Chd Var 5 mechanical defects

blisk photo due to Crumble -

Prints 1 ok

RD

1

2

3

4

5

6

10

fine  $\text{H H H H H}$  12

good

fine

Prof

Welder good  
Edges crumbled rather bad -

81E

2 Wood 5 Chalk  $1\frac{1}{4}$

old Condensite Varnish

w. once used in 14 to 1

Condensite blank

No adhesion of  $\text{H H H H H}$  in large press  
Wt 439 gds 235 leaves moved fine  
99 blanks 2 pullouts bal OK  
Mix like Crumbs

11  
Less blank has 12% lac this has 15.1%  
Condensite Resin -

Transfer - Reg Van dip 12 110K 1 stick  
to plates 1 printer 6 2 OK 4 poor  
prints -

RO 1  
 2 II  
 3  
 4 II  
 5 I  
 6 I  
 none

Fine III  
 good III  
 fair II  
 Ref II

The other 6 prints

RO 1  
 2 I  
 3 III  
 4 II  
 5 III  
 6 II  
 N

Fine III  
 good III  
 fair III  
 Ref II

6 6/4 was fine this morn  
 It certainly is the 3 blank  
 or mistake by putting on Reg Var  
 instead of 82E Var

All the prints are made by one  
 man this is true of Transfers  
 Different man at night

Washed with 2% bleach

Change  
 Acceptance

82E Varinal

Resin only no phenol added  
 use regular ingredients  
 with 5<sup>3</sup>/<sub>4</sub> 6/4 -

Use 1293 blank

Find if he used Nap 6y  
 mistake its OK - Didnt use Nap

Var - good, shows only sun on top -  
 Over 34 300k bubbles 4 -  
 plates look wormy - Very Even -  
 Transfers 12 II OK 1 pull out  
 Prints 6 OK

	Repeat
RO 1	Fine III
2 I	good III
3 I	
4 I	fair II
5 III	
6 II	Ref I

Something  
 wrong here  
 Amputating 6 more  
 These are just as bad

RO	fine			10
1-1	good			
2				
3				
4	fair			
5				
6				
Now				Roof

2nd coat 3 days after

RO	fine		
1			
2	good		
3			
4	fair		
5			
6			
Now			Roof

83. E

Phenol Resin no free phenol added, use regular ingredients and  $5\frac{1}{2}$

6/4 1293 blank

Van not very good, creeps, oily scum on top of vacuum sheets

OTW all look woormy Very Even

Transfers 12 11OK 1 mechanical def. 6 prints 6OK

Johnson Report



RD. 1 fine  $\overline{|||||}$  10 a%  
 1  
 2 1 good  
 3  
 4 1 fair.  
 5  $||||$   
 6  $||$   
 none  $||||$  1  
 82/100

84E

Phenal resin, no free  
 phenal added - use  
 regular ingredients +  
 5  $\frac{1}{4}$  6  $\frac{1}{4}$   
 1293 black

Van - good, very even, plate, only  
 seen on top of barinsh

Oven looks woody Very Even - 35-40 min  
 Transfers 12 12 OK

Prints 6 50k 1 poor print

RO

1-1

2-1

3-III

4-1

5-

6-III

none II 4

Fine



good I

fair II

Ref

This is the limit on 6/4 with  
plain 16% free phenol resin -  
birds pull bits show up  
in this 5 1/2 about right

Run over again 3 1/2 in. tall

RO

1-III

2

3-1

4-1

5-

6-III

none II

Fine

good III

fair I

Ref.

85E

phenol resin no free phenol  
added use big ingredients  
both 5 6/4

1293 blank

Var good fair body, sily occur -

Over plate, wormy Very even  
Transfers 12 6 PK 4 pull out  
12 birds -

RD 1 Fine II  
2 quad II  
3 7  
4 jaw III  
5 II  
6 III  
None II      Ruff II

MG

86 E

5 ~~wood~~ 2 Chalk  
2 lac

100 lbs pressure little pressure no scrape off  
Weight 435 dirty blank rough spots on  
132 blanks 94.5% OK  
Mixes like a paste

Transfers 12 OK 1 Cooked center  
1 left chd — 1 chd var

Print 1 OK 5 p prints —

RO

1 ||

2 |

3 |||

4 |||

5 |

6 |

none |

June 11 ||

quad ||

fair |

Ruf ||

Not much good

Weld's good  
Edges - fair -

87E

4 wood 3 chalk 2 lac

Blank 100 lbs little press packs nice  
no scrape off 405 - 103 blinks All OK  
Mixes like a paste -

Traylar 12 12 OK

Print 1 OK 5 p pencils -

88E

4 wood 3 chalk 2  $\frac{1}{2}$  lac

No Test

No stick  
to plates

89 E

Dehydrated resin -  
2 6/4 11% -

1293 Blanks

Tell Moore to use 50cc  
if not enough use 55cc  
as var will not have so much  
Condensate Muck in it,

Transfers all stick to Varnish  
plates Cant get apart the reason  
is that Hoffmann thought it would  
come down to 5% instead the  
11% or 6/4 is entirely too small  
to Condense the Varnish

Over worn - Crystallized looks bad for bubbles  
around edge of plate -

Var = Mottle like streaks,  
spots Oilscum Var breaks  
plates pool -

Mg  
Stuck to plate

90 E

Dehydrated Resin - 11% 7P

2 1/2 6/4 -

~~X~~ not test

Pulls out

91 E

Dehydrated Resin 71%

3 6/4 1293 blank

Var - Thin streaks, + holes - looks good  
but plates poor

Plates Oven - 35 plates 5 bubbles 30 ok  
looks worm Crystalized -

not Condensed in Transfer  
pulls out big chunks of plates  
crush good -



RO  
1  
2 11  
3 1  
4  
5 11  
6  
none

fine 111  
good 11  
fair  
Ref-

This is limit down  
on 6/4 in 11% Resin -  
nothing else

92 E

Dehydrated Resin 11%  
no extra phenol added

6/4

Var - thin streaks & holes look  
muddy & oil - plates poor.

Oven looks wormy Crystallized  
35- 34 OK 1 bubble -

Transfer 12 # OK - 5 pull out  
3 birds -

Printed 3 25K 1 p print

93 E

~~Dehydrated Resin - 11%.~~

~~A 6/4~~

It is likely that if we run  
up against crushed edges on  
2 wood-5 chalk 2 lac that  
after painting we can  
edge off  $\frac{1}{8}$ " extra + get to  
solid blank & by lacquering  
edge with thick lac  
stop peeling — absorb water  
also not hard in transfer  
or print so long at high  
temp so as to over  
condense outside surface  
of wax to make it  
curl away from blank

22 free phenol in 16 in Resin  
6 added +

$8 \frac{6}{7}$  is 2.75 free P per  $1 \frac{4}{7}$

16 Resin +  $6 \frac{6}{7}$  is 2.66 per  $1 \frac{6}{7}$

From the action of wood oil  
in Varnish the phenomenon  
on wax test of a part cutting  
+ other part not, that it is  
due to oil or ingredients  
that gets in Varnish -

It is likely Cracking is  
due to greater contraction  
of the non or semi condensed  
ingredients in the  
Varnish — Dehydrated  
Resin Exports will prove  
that.

PO	Final	
1		
2	quad	
3	few	Space
4		
5		
6	Ruf	
now		

This is very thick  $3/8$   
 Scrape off plate & extremely  
 hard —

94E ~~1~~ <sup>1</sup> thru 150 mesh ✓  
 Reg powder 89% powder Very fine powder  
 Duplicate of 48E  
 But the dipped blanks  
~~blanks~~ <sup>not</sup> baked,  
~~blanks~~ <sup>not</sup> baked, ~~blanks~~  
 Reg Var  
 + note all %s — Edge  $1/8$  more  
 than usual — This should  
 give fine results,  
 Blank  $1/8$  Scrape off lot 743  
 54-520K 1 pull out  
 mechanical  
 Blanks 12 1 ok 7 left 4 VarCh  
 Prints 1 —

Varnish has

62.2% Alcohol

37.8 Resin & other things —

35.53 When Free phenol removed

If para + meta added

35% The phenol added

With all the stuff we add it is  
40% non condensing stuff  
independent of the 64% or  
49% residue in Var of which  
only 35% is resin  
No wonder Resin cracks

90 grams Var

55.6 anhydrous Alcohol

2.9 Water

27.3 absolutely dehydrated Resin

2.8 64

7.7 Free phenol

0.4 Sand + Para. Mesosine

96.7 not right should check  
up to 90 see Hoffman

RD  
1 11  
2 1  
3 11  
4 1111  
5 11  
6  
n 1

7 fine 1111

quad 1111

face

R1



When get good blank  
use some of these  
plates —

95E

Duplicate of E 78.

Make up 150 plates.

This is 6 3/4 Naphthalene  
left out

use 1293 blank

Flow - <sup>var</sup> worked good don't creep - plates even  
Looks good no breaks, streaks, or holes OK

Green Worry have small bubbles  
then varnish not bad enough to  
hurt the plate

143 plates 137 OK 2 Rained 4 bubbles

Transfd 125 105K 1 bend 1 pin hole

Prints 4 OK 2 poor print

~~These~~ Concl size blank

RO	fun 1	Some envelopes
2	quad 1	
3		
4	four	
5		
6	Ref	Matted
from 1		just the same

97-E

6 Blanks 48E

45cc  
 Flow <sup>1</sup> req var on top of plastic  
 Let them dry on racks 3 hours  
 put in Cages + Bake regular  
 then print <sup>one of</sup> them direct  
 + use a few tracked blank  
 + Test Keep the other 5  
 Printed 2



1 permit RO Surface  
to fine  
none none ↓ fine

98E Reg powder ground very fine  
thru 150 mesh 89%

48E Blanks to be  
made in the most polished  
& best Blank Moulds  
use Regular Transfers Various

Transfer 12 Dup 48  
Print 6

Blank 1/8 scrape off 1st 725  $\frac{1}{2}$   
then moulds OK 26 260K  
wiper like pencil

Transfer 12 10K 4 Cooked Cakes  
7 left Cakes  
3/8 thick blank. A scrape off.  
Print 1 OK

Dontflow

1 Print RO Surf  
6 name v v fine Coat hard  
6 v fine

99E Reg Extra fine ground 89%  
Thru 150 mesh

48E Blanks to 62  
made with the roughest  
poor surface blank  
Moulds you can find  
Use Reg Transfers

Transfer 12  
Print 6

Drop of 40  
Blank 1/4 scrape off w/ 735  $\frac{1}{16}$   
25 made 1 pull out 1 mechanical defect

Transfer 12 - 1 ok 6 Cook Center  
5 lifts cracked

Prints 1

3/8 blank

Most of the trouble is in the blanks -

48 Blank is best finish surface no large holes, 1293 has holes like 1292 but far less, much better surface

48 Blank is far superior to any  
But the mixing is horribly bad

The lac is segregated lots of the wood has none, chalk clots strong in lac is yellow, spaces filled with chalk looking white. Most of the surface where it adheres is fibres just as if a clat of chalk should adhere as fibres don't shrink - The mixing is bad

Mould surfaces rough - see all the turning off marks if you use fine Emery paper

Nearly every blank has part of face pulled off <sup>by</sup> ~~the~~ mounds

RO  
1 fine. IIII  
2 good  
3  
4 fair  
5  
6 IIII  
None Ref

100 E

50 parts Chalk -  
 $\frac{1}{2}$  pint Cotton flock  
60 cc. black Varnish -

wt blank 1006 grams - 100% -  
liquid mix - ground Required

Transfer 12 print 6  
Depos

Transfer 12. 12 Discarded Cracked Blank  
2 printed -

"Blanks Ch. -

101 E

50 parts Chalk  
- 1 part Cotton flock  
60 cc blank Varnish

Transfer 12 Print 6-

1-6.RD  
1 No RO

1. Fin with cracks  
1. Fin V

103E

1-24-16

Take 12 blanks 100 E

Do not dip but transfer

with reg varnish

~~10~~ <sup>Blank</sup> transfered 10 cracked var

" Printed 1 - blank chd  
brills -

A	B	C	D	E
RO III H 2 3 4 5 6	RO III H 2 3 4 5 6	RO III H 2 3 4 5 6	RO III H 2 3 4 5 6	RO III H 2 3 4 5 6
Notes: 1. 1st 2nd 3rd 4th 5th 6th	Notes: 1. 1st 2nd 3rd 4th 5th 6th	Notes: 1. 1st 2nd 3rd 4th 5th 6th	Notes: 1. 1st 2nd 3rd 4th 5th 6th	Notes: 1. 1st 2nd 3rd 4th 5th 6th

A	B	C	D	E
RO III H 2 3 4 5 6	RO III H 2 3 4 5 6	RO III H 2 3 4 5 6	RO III H 2 3 4 5 6	RO III H 2 3 4 5 6
Notes: 1. 1st 2nd 3rd 4th 5th 6th	Notes: 1. 1st 2nd 3rd 4th 5th 6th	Notes: 1. 1st 2nd 3rd 4th 5th 6th	Notes: 1. 1st 2nd 3rd 4th 5th 6th	Notes: 1. 1st 2nd 3rd 4th 5th 6th

57E Duplicate 48E - but only use in big  
 make press the following pressures - II up and  
 A 300 lbs 12T Req V, 7 ok 2 pull out, 3 cks  
 Prints 6, 50K 1 pp margin

B 400 lbs From 12 Req V dup blank  
 8 ok 2 mechanical 2 stick to plate  
 Prints 6 60K - 619 flow on transfer - 1

C 500 lbs  
 Transfer Req V dup blank 12. 8 ok 1 lft ck in edge  
 2 ck 1/2 in 1 mechanical Print 6 ok

D 600 lbs  
 Transfer Req V dup blank 6 ok  
 12T 70k 3 mech injury plate stick to plate  
 6 P 50k 1 clipped 2 ok

E 1800 lbs  
 Transfer Req V Dup blank  
 Transfer 12, 70k 3 mech def plates stick  
 6 prints 2 OR 4 pp at 1/2 margin -

RO

1

2

3

4

5

6

None

Fine ~~HT~~ ~~HT~~ ||

good

fair

Ring

104

Dup of 48<sup>Ring</sup> powder  
(Redwood) 89% thru 150 mesh  
Crushed & Redwood

Smooth plates used  
Strike off also

It was washed thru by Moore OK except  
Red in center due to Varnish running  
out to edges hence no presence  
in center - The dipped part about  
big center holes about 1/8 @ 1/4 repeat

Hoffman 75% wt 796 - powder dried twice  
85% thru 180 - mesh 0-98

thick 3/8 blank

Transf'd 4 1 Cooked Center 4 big left  
1 Thin Margin

All due to blank



RO

1

2

3

4

5 11  
6 11  
n 11

fun 1/4

good

far

R

105 E

Rec<sup>pro</sup> Edra fine ground 59%  
Thru 150 mesh  
Shell-lac friable to

62 used Dup of

48 1/2 Pts off - wt 782

99.9% blank OK

104 blanks 1 pint out

3/16 thick blank Dipped -

12 Transf 40k 5 lifted 2 thick defat

Print 20k 1 print where is the

Too thick

R0

1

2

3

4

5

6

7 IIII

fine <sup>Y Y Y</sup> IIII...

good

fair

Kniff

106E Reppowder ground Ebon fine  
59% from 182

Solid black lac

Hard to be used Sup

of 48E rake off. Ebon<sup>1</sup>

Wt Blank 793 - 100%

Transfd 12 20K 2 left ckd  
1 ckd Van 6 mechanical  
plates ckd -

RO  
1 ||  
2 ||  
3 ||  
4 ||  
5 |  
6 ||  
None

June 11<sup>th</sup>  
good ||  
fair ||  
Ruef

107E

Dup 81E

Thick blank 99% Affirm scrape off -  
weight 753

Ground Res 63-6 thru 180  
Microsil .74

Transfer 12 80k 1 (Bm) 1 (Ch) 1 (Vw)  
6 prints 60K -

RO  
1-1  
2  
3 11  
4 1  
5  
6  
now 11

fine 11

good 11

fair 11

Ruf

Reg Var

108 E

Dup of 48

Make the blank as thin  
as you can transfer &  
print it Ask Moore

How thin you can make

Reg Vat  
" it. 400 gm 20 lbs press  
Powder probes for pm removed + 1/2 inch rubber  
put out top of small rubber powder pm in  
close in small press Wt 417  
200 to 205 gm less weight  
Clouded & faded - no adaptation  
ring used 18 all OK

Trans - 12 - 1 Cooked Carbon 7 big lifts  
Center - 1 mechanical Center  
3 Prints OK  
trouble w blanks

RO

1-1  
2 1  
3  
4 IIII  
5 IIII  
6 II  
none

fine IIII

quad IIII

fan IIII

leaf

Red Van

109

Use 48 powder

Make 15 blanks - no hammers  
working - no strike off - Thin  
~~plate~~ Blank

Blank - 1/2" rubber placed on top small  
rubber powder pack close in small press  
1/8 below mensel ring - wt 508  
range 235 290 leave mensel  
clouds & frosted no antiplex ring  
used 180K no die -  
20 lbs used

Transfer 12 5 lifts cracked  
~~4/4~~

Prints ~~30~~ poor ~~prints~~  
~~30K~~ 30K

1293 Reg  
 This is big lot of 1293 blanks run  
 three Regular  
 759 Transfer 216 Cracked 1 Hole  
 69% OK - 72% for Cray

Prints  
 543 Prints 388 OK for only for  
 defects due to blanks + transfer  
 59 Run Outs  
 1 Rough surface  
 83 Cracks  
 6 poor prints  
 6 feed line Cracks -

85% for prints  
 71%  
 Total 49%  
 from 1 print

Am having inspected in same way  
 an equal number of Regular prints

The above look very much  
 as if it is the Varnish  
 too much fresh phenol

Use Hammers Best

110 E Use 48 Paces

Make 15 blanks Let  
 Hammers work three times  
 longer than usual -  
 No 15 cracks off - Thin blank

~~7~~  
~~6~~

500 gm 20 lbs used Hammers worked  
 1 min - push bar 1/2" rubber over sunbeam  
 powder bed, pass in small press 3/16 below  
 moist run Lot 485 sample 220 275  
 leaves must slightly clayed + fractured  
 No rollers run used 18 CRK no dies -  
~~...~~

201  
 2  
 31  
 411  
 51  
 61  
 71  
 81  
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 871  
 881  
 891  
 901  
 911  
 921  
 931  
 941  
 951  
 961  
 971  
 981  
 991  
 1001

Transfer 12  
 2 lefts CK  
 4 thin blank  
 Prints 2 poor prints  
 1 CK center at end

RO

1 ||

2 |||

3

4

5 |||

6 ||

n ||

fine ||||

good

fine |||

Ruff ||

III E We had 2: 94°. This is one

Old 48 Blanks reg wood  
peep Lamp black no strike off -  
40% 50% thru 180 - 20 lb small grain

Use to eff men (1319) Van 6L44  
no added material

Van ok wks good - plates even - no  
abraded or holes Dowl creep -  
Oven 374 357 ok 12 bubbles  
1 Remand 2 ok 2 injured

Transfer 12 80k 4 left (ok)

6 Prints 6 ok

by

RO

1  
2  
3  
4  
5  
6  
7  
none

June <sup>11</sup> 1111

good

fair

Pruf

112 E

Duplicate 106 E with thin  
plates made in turned down  
rings. moulds so as to get a  
scrap off

Dipped  
This is 48 E powder vs q lac  
but ground fine 89% (rest 150 mesh)

Make ~~12~~ plates as I want  
to transfer some special  
varnish

550 gm 100 lbs press  
1/4 in mould ring used with 8 pt  
bottom plate placed under ball  
plate in mould to cause mould  
clear powder packed close in  
small press 1/8 scrape off with 453  
gauge 216 leaves moulds cleaned  
refracted - 27 ok 9 pull out.

12 Trans 2 & 3 thru May 1 cl'd Var  
5 left cracked - big Center lefts 2 or 3"  
Hollow Var plates -  
Prints 1 poor 1 cracked around us exp



PO

1  
2 1  
3 11  
4  
5 1  
6 11  
now

7m 1111

quad 11

fair

Ref

*small conch*

Blanks 550 gm 100 lbs per  
1/8 scrape off. wt 456 - Calliper  
210 - no discards -

113E

Dup of 112 but use regular  
ground powder in 48 mix  
but use low rings & get  
scrape off in thin blank  
This is to compare coarse  
& fine powders -

Make 12 only

550 gm 100 lbs per 1 1/8 moved run  
used bell plate placed under bottom  
plate - moved to raise mound -  
Clear hammer pack close  
1/8 scrape off 453 wt gauge 210  
leaves mound (probed & cleaned)  
- ofats - 12 blank 12 OK

Drum 12 3 Cooled Chubs  
5 big 2@4" left 1 thin wing  
3 prints 3 OK

RO	Fun <sup>v.v.v.v.</sup> <del>    </del>	2 Extra not dipped	gump
1	good	RO	Fun <sup>v.v.v.v.</sup> <del>    </del>
2	good	2	good
3	fair	3	
4	fair	4	fair
5		5	
6		6	Roof
None	Fun	None	Roof

Baths OK unless transferred  
Print off

The Extra 2 dont weld at all  
Can peel var off 1/2" area  
1 piece -



Note surfaces

114 E

Use - 112 E Blanks, Make

12 Transfers using

16 Resin Varnish with,

5 1/2 of 6/4 - no naphthalene in

Print 6 =

Transf. 12 - 6 Cooked Cans  
6 left Cracks by left center

All ducts  
Thin hand blank

RO  
 1 fine IIII  
 2 good IIII  
 3 II  
 4 IIII  
 5 IIII  
 6 II  
 none Rf

Caliper 155/1000  
 5/32

Phenomenon - These blanks & Records should not have any mottle - yet they have strong mottle. Notwithstanding fine powder & chalk.

There is something causing them that we have never suspected ? ?

115 F

He can only grind -  
 63% thru 180

Duplicate 1293 ground  
 fine, 89% thru 180 -

Use turned down ring mould  
 have scrape off & then blank  
 use Reg Transfers -

Make 12 at first  
 & then if moulds not busy  
 make 24 more

Blank 11/16 ring used - 350 gms. 100 lbs -  
 1/2" extra rubber and rubber pads above in  
 small press wt 236 gms 1/16" 3"  
 dull blank lower in press  
 36 OK 2 pull outs - He don't say that  
 there is a scrape off -

Trans 12 - 11 OK 1 mch'd defect  
 Prints 6 prints OK except poor prints  
 on margin -

If a record was on Lwound  
faint it is OK.

Outer part steam is sharp fair  
1" in depth surface good  
way to fine except some  
fry. This process is  
Very promising  
if it will work on  
1293 fine ground -  
No RO -

Waver took thin 48E blank  
varnished it over with a  
brush light, dried it 2 hours  
on rack - Then flooded  
it Reg 45cc Then dried  
2 hours on Rack  
Then therm. run it thru  
the Reg Oven schedule  
with big plates -  
one one side only

Note  
63% thru 180 Mesh is as  
fine as we can grind  
1293 powder 5 wood 2 chalk  
2 lac —

We may have to get better  
grinders but hope not.

116E

Make a batch of Varnish  
Using 16 Resin, <sup>not suspended</sup>  $5\frac{1}{2}$   $\frac{6}{4}$   
no Naphthalene -

+ flow 400 plates

+ Transfer + Print <sup>blanks</sup> sequential

Transfers to get inspected  
also Prints -

Use Regular Blanks -

Tell Moore about this.

RO  
1-1  
2  
3 III  
4 1  
5 III  
6 III

fine IIII

good IIII

fair

Ruff

None

fair, good, used

Not satisfactory as to surface

Edges fixed to good

117-

Use 1293 powder  
ground 60 to 63  $\frac{1}{2}$  Hour 180  
Mould in regular moulds  
regular way if it will not  
make too thick a blank  
the make 100 blanks

Transfer 12  
print 6-

Using 118 Special Varnish  
plates — 450 gm  
75 lbs -  $\frac{1}{8}$  scraper, wt 405 - gauge 237  
1000 moulds fair 107 all ok  
Reg Moulds 1293 ground fine  
mould 12 all ok  
8 sheets to plate (1 side) curved Edges  
2 both sides 2 released freely

118-E

Make 300. Blamish  
plates Extra over what you  
make for 116E -

Want to use these plates to  
Experiment with on blanks of  
different kinds —



RD

1

2

3 ||

4 ||

5 ||||

6 ||

none ||

Fun III

good |||| even but not soft

fair |||| - even but slump -  
no cracks

Ref Welds good -  
low

Blank standard  
Thickness

Edges fair to good

119

Duplicate 117 but  
use Regular Varnish  
plates to make transfers  
Dipped

Transfer 12  
Print 6

Transf 12 12OK

Print 6 - 5OK 1 poor print

PO

1  
2  
3  
4  
5  
6

none IIII

fine IIII IIII

good

fair

Ruff

<sup>be</sup>  
T on the

Don't need good  
Can run knife in  
to chip off 4 sides

### Blank Report

1" ring 450 gram 75 lb - 1/8 scrape off

wt 292 Calliper 220

dull black leaves moulds fine

24 24 OK 100%

1293 - all thin 180 leaves moulds  
fine no cloudy or pitted -

120.E Jake 1293 powder fine  
ground 63% from 180 -  
Screen enough from 180  
to make 24 blanks in  
~~Regular moulds~~ with ring  
moulds - also make  
~~24 blanks~~

Use 12 of the blanks  
with Regular vacuum

Transfer 12 110k 1 mechanical  
6 Print 6 OK -

Blanks stuck to plate (side) around edge 3  
Both side 1 broke out center 1  
released freely

Used 1 inch ring -

RD                      ~~Time~~ ~~Time~~                      9 fm

1                      good

2                      good

3                      good

4                      fair

5 III

6 IIII

None III - Ruff -

Edges good - need not be over edged  
 only 1 disked & that not more than  
 6/1000 -

121 E

Use The extra blanks  
 of 120 E + transfer with  
 118 E plates which  
 we have made several  
 hundred - These  
 plates are  $5\frac{1}{2}$   $6\frac{1}{4}$   
 16% Phenal Resin -

Transfers 12 120K                      Eveno plates over  
 Prints 6 60K

2 stack plates (1 in. 2 around edge)  
 1 " " " 1 2 with 6 sides  
 9 free release

Re inspection of records  
 other ok -

spaced a little  
 7 corners of plates with edge  
 bond blank 1 inch

RO WT

1 II

2 III

3 I

4

5

6 I

none

fine II

good I

fair WT

Ruff III

~~122 E~~ 122 E

Make in inch ring moulds  
24 blanks - of 1293  
Powder Coarse part  
that didn't go thru  
180 mesh -

Transfer 12 with  
Reg vacuumish plates

~~10~~  
~~11~~  
~~12~~  
~~13~~  
~~14~~  
~~15~~  
~~16~~  
~~17~~  
~~18~~  
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~~97~~  
~~98~~  
~~99~~  
~~100~~

RO	fine	
1	good	
21	fair	
31		
4		
5		1
6		
none	Rough	

~~122~~ 123 E

Dup of 122  
 Use the other 124  
 Transfer with 118 E  
 Varnish plates of which  
 we have several  
 hundred - This  
 Varnish is  $5\frac{1}{2}\% \text{ } 6/4$

Trans 121 OK 100% 2 mm  
 40 stick to plate (1 side) around  
 1 edge - both sides  
 of plate and face  
 Clean Ray

ROI

1  
2 1  
3 1  
4 ~~1~~  
5 11  
6 1  
none 1

fine ~~1~~ III

good

fair

Ruff 11

4+2

124E

Moore

1293 Blanks dipped in  
dipping Varnish which  
has added to it a bulk  
of alcohol Equal to its  
own bulk. & well mixed

~~10~~ 10 ~~sec~~ <sup>right amount</sup> dip ~~10~~

Transfer 12 Reg Varnish

Transf 12 110K 1 ch.  
2 stick to plate 1 side around Edge  
10 released freely

Prints 6 60K

125 E

Make some dipping Varnish  
about 5 gallons, split it in

5 lots of one gallon each

In each gallon put in No 1

3  $\frac{1}{4}$  #2 put in 4  $\frac{1}{4}$

in #3 5  $\frac{1}{4}$  — in No 4 6  $\frac{1}{4}$  —

in number 5 7  $\frac{1}{4}$  —

I will make a tin can to hold  
enough to dip single records  
= put the 5 lots of Varnish  
in Ice chest

RD  
1  
2  
3  
4  
5  
6

none  
none

2nd test.

fine		RO	fine
good		1	good
		2	
fair		3	good
		4	fair
		5	fair
		6	fair

non  
1 Broken 4ft 8th Drop  
" " 1st "

Ref.

126E is 89% fine this Explains

Note 126 as compared to 127

127 - Certainly 127

has been hurt in transferring or printing  
as 1/2 (Wood) showed not have made the big difference in RD

Will run three 12 more

124 plank 11/16 in 1/8 in gap off -  
lot 330 - 3/16 in gap  
12 126k lead moved  
cleaned up front

126E

needle shows no cracks from  
note -

Make enough powder for  
500 blanks of -

5 Chalk 2 1/2 wood 2 (ac)

ground at 89% thru 180 -

Make 12 with turned down mould  
ring like used in 112E - Thin plate,

Use 5 1/2 6/4 Varnish plates E 116 -  
We have a lot of them now - Dip regular

Print 6 - These are for surface  
test & drop on the floor test  
to see if the extra wood will  
strengthen them -

test 4 ft drop -

Transfer 12 90k 1 coated  
2 big left - center -

Print 50k 1 poor print -

5 Chalk 1 g. do -  
7 free release



RO  
1  
2 1  
3 11  
4 11  
5 11  
6 11  
None

fine HT III  
quad 11  
fair 1  
Reef

We clean them  
RO Broken fine  
2 good  
3  
4 fair  
5  
6  
None Reef

Dropped on hard floor held  
flat 4ft high -

1 Brake on 2nd Drop  
1 " 4th "  
1 " 5th "

Even Chalk is too weak for  
Commercial + in  
addition don't give  
good surface like  
120 126E

127E 65% fine

Drop of 126E

But use 5 Chalk 3 wood 2 hoc

50 Planks

dips

Use 116 E Varnish plates

Transfer 12 12 OK Even plates  
transfers - 1 blank stick 1 side at edge  
" released freely  
Transferred good - black brake out  
at edge

Will run them 12 more  
127- to see if they will improve  
as as good as 126

1/16 ring - 500 gm 100 lb press  
1/8 range off. Lot 347 gamp 3/16  
pink 12 12 OK leas should  
clouded + present.

2nd Lot  
RO 111 fine HT 11  
1 11 quad 1  
2 11  
3  
4 fair  
5 1  
6 1 Reef  
None

RO

1

2

3

4

5 III

6 IIII

none II

Fine <sup>V V V V</sup> IIII IIII

good II

fair

Ruf -

Can under-run with knife  
to left out  $\frac{1}{8}$  piece -

128 E

Moore Varnish 12 plates

E 116 - with Dipping Varnish  
dry and transfer them on

6 - 1293 fine ground powder

blanks made in ~~off~~ wash  
ring - Do not dip blanks  
as I think Varnish on  
plates will do the trick

Use 132 E Blanks

Ground 12 100k 2 Cooked Var  
Blanks stuck to plates 1 side around Edge 5

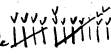
Released freely 7  
Var transferred 7

Prints 6 60k

Ro

1  
2  
3  
4  
5  
6

now

fine 

good

fair

 Reef

Probably  
5 wood 2  
Charcoal will  
do - 4 stand  
Drop test

Fine wood Cant under run

4ft drop - 1 1st drop  
1 2nd "

To brittle to be commercial

Transfer 12 - 11ok 1 mechanical  
1 stick to plate 1 side 11 free release  
good transfer -  
6 prints 6 OK

Re inspection of prints - 1 squeeze out at  
Edge Crack 1 cracked from  
Color hole made in knocking out pin

129 E

58 blanks

Grind some charcoal so all  
passes 180 mesh - mix with  
wood fibers that all has  
passed 150 or 180 mesh.  
Use 3 Wood 4 charcoal  
& grind as fine as you can  
Use Reg mould so as to get  
some strike off -

Transfer 12 using 116 E  
Varnish plates  
Print 6 -

Dip the blanks Reg dip Varnish

1/16 moulding 450 grm 100 lbs press  
1/8 scrap off <sup>1/2</sup> left 335 grms 210-220  
leave mould clean <sup>1/2</sup> 84 84ok  
Blanks Very cloudy - packs firm in small  
press

RD

1  
2  
3  
4  
5  
6

none

7  
8  
9  
10  
11  
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97  
98  
99  
100

good

low

Pluff

Broke 1st 4 ft drop

Weld can be under run a little  
to chip out 1/8". Not so good as  
129 - then dip var is not good

Transfer 12 look 2 Cracked Vair  
Point 6 30k 3 Manquin Cracks -

these are squirt out cracks probably  
due to excess alcohol in Dip -

130.E

Dip of 129 but blanks  
dipped in Dip Varnish  
which has been thinned  
down by using equal  
bulk of Alcohol dip  
in + out quick -

Transfer 12 using 116 E  
Varnish plates  
Point 6

Ro

1-1

2

3

4

5L

6H

u

fin<sup>v</sup>

quad III

(

131 E

Moore

ok

Paint face of

6 116E Varnish plates

with Soda + dry - I will  
give you the Soda -

Transfer these plates on

1293

not fine

~~1293~~ ~~1~~ ground blanks <sup>bag</sup>

Print them - test for WELD  
& surfaces -

Soda 20 minutes

by mistake instead  
of 20 seconds -

132

OK

Make up 100 blanks

1293 finest ground 63%

~~with 1/16 mesh~~ use sieg mould

Blank  
11/16 mm 1/8 scrape off wt 220.99  
gained 1/16"  
95.3% OK

leave moulds clear

108 - 103 OK 2 pull out  
3 mechanical defects

325g 100 lbs press

All 4 Record <sup>V</sup> Fine surface  
no Run out, few fine chips  
most noticeable - ~~could pass~~  
the 4 as A1 Records  
Welds fine Edges OK -

This should be worked  
up -

Baked in oven 9 hours  
1st 5 hours from 90 degrees  
10 degrees each hour to  
230 deg

133E

Take dozen <sup>4 to a 1293 blank -</sup>  
~~48 blanks thin 11/8~~  
117E

Varnish with a brush One  
face of the blank Using  
Dip varnish thinned down by  
adding an equal ~~amount~~ bulk  
of alcohol Dried 2 hours on  
Dry rack - 45 cc flowed 116E  
Dried 2 hours -  
The flow over 1/2 doz blanks  
45 cc of 116E varnish +

Dry well before putting in  
oven then run oven up  
very slowly to stop  
bubbles but fuel lamp  
should be as high as Reg  
Printed 4

Resin is not soluble in Ammonia

Resin dissolved in NaOH + precipd  
by HCl is pink if heated,  
the Resin precipitates white  
some Rosanin in it,

134 E

Huffman

Make 5 gals 116E Var  
that has  $5\frac{1}{2}$  lb 16/4 no phenol  
added 16 Resin

And put it in the Lee Chest  
for use, test viscosity &  
then 24 hours test viscosity  
again -



~~1387~~

Make up gallon Varinisk  
instead of using 6/4 use  
5 of the Chloride of 6/4 -

Transfer on Reg Blanks  
News etc has it -

1368

Dup 1368

But use 6 of Deklonde  
of 194

134E

Dup 135E

Using 7 photos 6/4

~~138~~

~~Dup 135~~

~~Using 9 of chloride of  $\frac{6}{4}$~~

139E

Dup 139E

Using 12 clones of 6/4

4  
Fred Otto's Experiments - Simple Blank  
50 chalk 2 Cowhairs - glue

Been trying glue mixing it  
with Chalk Cowhairs etc -  
Cant work it - impracticable

**Notebook Series -- Notebooks by Edison and Other Experimenters  
Disc Record Book No. 4  
Notebook, N-16-01-28**

This notebook was used by Edison in January-February 1916 for notes on experiments to improve the composition of disc record blanks and the varnish surfaces applied during the transfer process. Included are notes describing experiments numbered from 139E to 185E in which the ingredients for record blanks and record varnishes are varied. Also included is a small group of experiments on varnish compounds, along with several lists (called "testers' designations") of flaws observed in record blanks. Additional entries summarize the results of the numbered experiments, as well as relevant information from earlier notebooks. The front cover is labeled "1916 #4." The pages are unnumbered. Approximately 140 pages have been used.

1-28-16

1307 E

10 CP phenol free resin by NaOH,  
2/3 of 6/4 1/2 paraphenylenediamine

16 alcohol

10 CP

3/4 6/4 1 para

10 CP Resin gums

16 Alcohol

100 Mily Para

50 mily 6/4

10 CP

1 6/4 1 para

Tds on

10 CP

1 1/2 6/4 1 para

Des over

10 CP

1 3/4 6/4 1 para

1 - 2 3/4 6/4

2 3 6/4

3 3 1/4 6/4

4 3 1/2 6/4

5 3 3/4 6/4

6 4 6/4

7 5 6/4

10 CP

2 6/4 1 para

10 CP

2 1/2 6/4 1 para

8 = 2 rods regular  
4 days in Yee  
Chest



1-31-16

Results 139

Schedule in Water Jacket Oven

1 hour to 100°		
1/2 "	115	No. 1 not condensed
1/2 "	125	2 "
1 "	145	3 " bubbled some
1 "	150	4 1st stage rubbery when hot
1 "	155	Gr. 11 & 12 & 13 with cold
1 "	160	5 About same as 4.
1 "	170	6 3/4 Condensed
1 "	180	7 1st stage rubbery fully formed
1 "	190	
1 "	200	

Shut off - cooldown all night

The whole run is wrong very little  
ventilation and the temp is too  
low, should be 225° at least +  
held for 2 hours -

It may be the CP Resin needs  
higher temp -

I heated them on hot plate - 2 1/2 6 1/4  
is condensed + hard leaves plate  
but others not good - think 2 1/2  
is minimum + should have 2 3/4  
3 3/4 3 1/2 3 3/4 4 series run final  
or 2 1/2 hours on plate

Note - Resin 16% bisphenol  
in ~~water~~ in NaOH boiled  
down thick using 6 1/4 Condense  
OK, fine lumps - 1/2 well  
Condensed think NaOH can be  
washed out + still leave a good  
surface should be flexible  
read rougher than others +  
Condenses OK + hard -

Continued - Or put in an air  
oven + go to 235° for 2 hours

Can't scratch No 6 or 7 by finger  
Nail at all

5 Either -

135 = Doing work  
flow 12 plates with Regular  
Varnish and 12 plates with  
116 E. Varnish - Rub the plates  
with oil of Sesame ~~to~~  
so Veneer will leave the plate  
free - Want to see which  
Varnish contracts the  
most -

Workwork

136E

How of

Press 2 Regular blanks  
2 blanks made of 1293  
paper ground to 63%  
between two polished plates  
at 1000 pressure in  
Printing Press -

Edge them all on same  
mandril to get all same  
size - Bring down to  
chemical room want to  
test Expansion at  
different temperatures

Test before baking		2nd test after baking	
RO:	fine $\frac{5}{11}$	RO:	fine $\frac{5}{11}$
1-7	fine $\frac{5}{11}$	1-11	fine $\frac{5}{11}$
2-11	good $\frac{7}{11}$	2	good $\frac{7}{11}$
3	fine $\frac{7}{11}$	3	fine $\frac{7}{11}$
4	fine $\frac{7}{11}$	4	fine $\frac{7}{11}$
5	fine $\frac{7}{11}$	5	fine $\frac{7}{11}$
6	fine $\frac{7}{11}$	6	fine $\frac{7}{11}$
none	Ruffi	none	Ruffi

No 2 - 1 in 1000

3

Dimensioning -  
 1 has warped  $\frac{1}{32}$  more  
 Moore says -  
 others OK music OK -

Think dimensioning OK

# 137E

9

Bake 6 Reg records  
 between clean varnish  
 plates in Chemical  
 room up to 170 Fah  
 or softening point +  
 then Cool

Test surfaces before doing  
 so + after baking

8 am	70	7 pm	80
9 "	80	8 "	70
10 "	90		
11 "	100		
12 "	110		
1 pm	120		
2 "	130		
3 "	120		
4 "	110		
5 "	100		

These are actual baking  
 figures -

Moora 138E 9  
Get me 1 oz of the  
1293 powder sieved  
thru 180 mesh - want  
the powder that passes  
180 - test for fire  
if it ignites easy bring  
to Chemical room  
for test.

Edison 139 E

Take 22 grams pice  
phenal add 6.32 grams  
6/4 ~~or~~ Reflux take +  
Condense it -

It condenses it to a resin  
with smell of pice phenal -  
+ that's about all - surprising  
amount of water comes on top  
of resin -  $\frac{1}{2}$  +  $\frac{1}{2}$  I added a little  
alcohol to dissolve 6/4 but it  
wouldnt so added enough water  
to just dissolve 6/4 hot,  
Formation of resin forms water  
I guess

RD1  
 1-1  
 2-1  
 3-1  
 4-1  
 5-III  
 6-III  
 none 1

Fair III II  
 good III  
 fair I  
 Prof I

Old powder is NG

Blank too hard couldn't use  
it anyway -

Transfer 12 110K 1 thin margin  
black in steps wide

Print 6 5th one cracked  
feed line, pty squeeze out  
Very hard blank

So hard moulds don't  
give good impression

140 E

9

5 Wood 2 old powder

$\frac{1}{2}$  Loo 63% Hou 190

- mesh - make 24

- blank's Reg size -

Use 116 E. Varnish

plates

Traces 12

Print 6

1" ring in moulding  $\frac{1}{8}$  scrape off  
wt 394 - Calc 235 -  
leaves moulds printed & already  
25 all OK

RO fine HT 11  
 1 good HT  
 2 1  
 3  
 4 III fair  
 5 HT 1  
 6 II  
 none Ruf

116 E Van 390 plates  
 Without Negrosine  
 Bubbles 32 45OK  
 Raised 3 249 fine bubbles  
 Chipped 6 13 patch -  
 Cornstarch 16  
 Dimpled 8  
 65 323 83 3/4

Negrosine may be bad

141 E 9  
 Make <sup>2</sup>gallon 116 E  
 but put in the Negrosine

Transfer 12 on 1293 proceed  
 ground 63% thru 150.

Print 6

Transfer 12 110K 1 B ind

Prints 6 6OK  
 stuck to plate 1 side, edge 4  
 Both sides 6  
 released freely 2

flowed  
 1/2 inch for 1/2 inch  
 61% treatment  
 plates

132 plates  
 Oven - Raisins 22  
 Cornstarch 22  
 Chipped 7  
 Dirt 1  
 uneven 3  
 Bubbles 49  
 36 OK  
 18 uneven  
 39 patch -  
 93



142 E

Okworkok 9

Moore get me pint of  
Regular dip Varnish  
+ 1.0% lampblack  
Edison to load dip  
Varnish up with lampblack  
as far as it is practical

" Moore has a single thin  
blank with 3 sections danted  
on 1 face. some lampblack marked  
1 thin 2 has more + 3 much  
only X01 is practical —

143 E

Moore

9

Note if four present records  
are generally flat, if  
you can find some  
dished ones bring  
them to Chemical  
Lab. —

144 F Nov 1-31-16  
Put in 6/7-15 <sup>7 months</sup>

7 to 1 old lac blank blank  
not dipped 3 of them

Put in window of old  
dipping house (Holt house)

Exposed to sun on one  
side - other side got no  
sun - Water got on

" 2 Cracked on shady side -  
none on other as sunny  
side - They are pretty flat  
slightly bulged on sunny  
side - but its hardly enough  
to notice - Cutting edges  
with knife gives no cracks



The 2 Cr.

145 = 2" plaster paris  
blank  $\frac{1}{4}$ " thick dried out  
then soaked in Dip  
Varnish thinned down  
Equal bulk alcohol  
soaked -

See went all over but  
not enough of it

Weight before soaking

15.350 gm

after 17.220. dried -

1.870 gm 12.1% loss

Reg blank has 28% loss  
(1293)

pressed it in press hot  
trials about same as  
Reg plaster paris would

RO  
1-III  
2 I  
3 I  
4-III  
5-III  
6 I  
nom

Fin III  
Food III  
fair  
Ref-III

Heat for  
Varnish  
Transfer  
Varnish seems  
ok to the  
Dad blank

9 case of 1000 capital on face of  
of "Print of minute plates this kills it most  
Covers the - powder 8 min  
get about 17 in better

12 transfer 12 OK  
6 print 6 OK



Over - 65 plates 2 large bubbles  
1 out 1 bumps - 4 discards  
59 good plates  
55 - Even plates - 1 patched 3 fine bubbles

Flow extremely bad worry  
works good - even don't creep  
after plate settles heavy grey scum  
shows up on surface 10%  
patch plates

Weld seems perfect Can  
under-run knife at all -  
that we have

146E

Will transfer on  
1293 of 117 or  
~~1293 of 117 or~~

117 Blank  
Hydrochloride of 6/4

Make about 1 gallon  
of Regular Var but  
instead of using 8

6/4 Use 10 grams  
Hydrochloride of

6/4 - ~~use 10g~~  
Don't use Negrosin

Suspect for defects &  
Bubbles - use 5% Extra  
Water in your alcohol  
to get the Hydrochloride dissolved

1-31-16

Note - Noco on hand

4	48E	Reg 68	Hum 180	
1/2	48	fine ground	89 1/2	Hum 180 ✓
4	1293	Reg ground	34 1/2	" "
1	1293	fine	63	" fine"
1 1/2	1297	fine (now reg)	48	" "
1 1/2	1397	"	89	" ✓
1 1/2	1398	"	65	"

#1 Bag makes 50 to 60 blanks

plates 1680 of 147

Oven 14

Unknown	2
Bubbles large	285
Raise	109
Cracked	3
Chipped	7
Print	2
injured	9
Dimples	11
Wrinkled	25
	<u>459</u>

1662 resin  
NO 1 oven

	2
	292
	138
	5
	7
	3
	0
	12
	<u>23</u>
	482

Raise & bubbles  
no trouble

Van crosses breaks in center strongly  
got nasty dirty color  
50% patch

1662 plates

This is not the same  
resin as in previous 116E  
but a new Resin having  
16% phenol only 15 sec diff  
in viscosity

Think 6/4 too low  
+ Resin has more  
than 16% in Resin

147E

~~Trans~~

Transf 24  
13 OK 4 pull out  
7 Birds -

Run through 50 gals  
E 116. - Reg Schedules

Have them inspected  
plates transfers & Prints  
Negative Para & Scandria

All transf on old (293-48) Nov 150  
Transf 24 - 10 OK  
NO 1000 10 pull out 4 Birds

NO 1000 Transf 24 9 OK  
8 pull out 5 Birds 2  
Cracked Vanish -

Proglas 24 24 OK -  
for comparison

I put 50 grams of Crystallized  
Phenol 14.50 gm 6/4  
had to put some alcohol in diluted  
with water to dissolve the 6/4  
Use flask & reflux tube, all  
night on hot plate gives a  
brittle resin, rather low  
melting point -

This proves that our Resin  
Venca is composed of  
29% of at least of P.M. The  
resin - as nothing (12) 6/4  
" was left to Condense the  
71% of Resin - the chances  
are that subsequent Venca  
where phenol is brought up  
to 22.5% phenol - That  
we have a very much softer  
resin in our Venca (12) 30%  
of worse than useless semi resin  
very brittle -



1-28-16

Notes



Plates good	41261
Transfers "	20327
Blanks sent up stairs	21262
93% OK plates	
75% good transfers	
4.1 " Camel	
<u>234</u> Rejected	
Printed - Reg	13326
Repairs - Dipped	<u>1505</u>
	15872
1 sat Dept Rescued	15782
OK	6730
Discarded	<u>6056</u>

Knocks 9%	<u>1165</u> *
Crackles	26
Run Outs 13.8%	<u>1769</u>
Ruff surface .5	83
Cracked 6%	<u>767</u>
Poor print 1/6	207
Scratched 2.9	<u>374</u>
Silver Spots 1/4	<u>314</u>
White Spots 3/8	<u>482</u>
Holes 1/6	<u>212</u>
Mild Knocks 2.1	<u>348</u> *
Red Line	26
Bad Centers	87
Cuts	18
Chip'd Edge	<u>117</u>
	6056

Dipped - Repaired	<u>385</u>
Knocks	<u>306</u>
Run Outs	66
Cracked	81
Bad labels	54
Scratch	39
Silver Spots	68
White Spots	32
Holes	82
Mild Knocks	30
Blank Dent	13
Bad Centers	17
Cuts	16
Chip'd Edge	16

Testers Designations

White Spots

- 1 - Bird filled with white Transfer polish
  - 2 Bubble
  - 3 Bubble
  - 4 "
  - 5 "
  - 6 "
  - 7 "
  - 8 White in it probably bubble
  - 9 "
  - 10 Fine angle crack  shows yellow
  - 11 White chunk in - probably a bubble
  - 12  white thin + transparent
- Transfer not cleaned well left some polish  
on not wiped off —

## Festers Designation Knocks

- 1 Fibre - long not round - possibly fault
- 2 Cracked after printing by hitting record
- 3 Another Mechanical injury
- 4 Torn spot, undecided
- 5 Looks like dirt spot, possibly a bubble hole
- 6 Knot of very fine fibres
- 7 Moore say Vienna time white spot
- 8 Small bubble  $\frac{1}{1000}$  dia
- 9 Bunch small fibres
- 10 Crack full of dirt - might have been bird
- 11 Dirt on transfer

# Testers Designation Holes

1	Bubble	Discard	
2	"	"	
3	"	"	
4	"	"	
5	"	"	
6	Reproducers skipped	Discard	
7	Bubble		"
8	"		"
9	"	Close up	"
10	"		"
11	"		"
12	"	big	"

"

Testers Designation (Silver Spots)

These are due to lead gasket wire  
squeezing out & pieces lay on  
mould & pressed in. Success  
Wants a harder alloy

1	Show-lead piece -	Dis
2	Bubble	"
3	Piece of lead	"
4	"	"
5	"	"
6	"	"
7	"	"
8	"	"
9	"	"
10	"	"

Yesters Designation  
Scratches -

- 1 - Bruise - Dis
- 2 " "
- 3 OK - over record scraped over another
- 4 OK Only Top Bruise -
- 5 OK " "
- 6 scratch too deep Discard
- 7 " "
- 8 " "
- 9 " "
- 10 " } Moon
- 11 " } Says quite pulling on machine
- 12 " }

Doubtful as covered by pulling on machine - Tried it & it causes great & permanent lateral pressure. Even then not so bad & unlike records tested

Its some where else short & sharp with great pressure

Testers	Designation	Cuts
1	OK	only top wall brushed on
2	OK	" "
3	OK	" "
4	OK	speaker skipped
5	OK	only wall hurt
6	OK	" "
7	OK	speaker skipped from one to other group

All Cuts will generally be found OK - Have special arrangement for these -

Knocks  
Scratches  
Silver Spots  
White Spots  
Holes  
Cuts

Days Run  
2802

Knocks  
Scratches  
Silver Spots  
White Spots  
Holes  
Cuts

41.5%  
13.3%  
11.2%  
17.2%  
7.5%  
0.6%

low  
\$322.0  
\$109  
\$98  
\$136  
\$60  
\$726



1-28-16

Testers of Transfers

Show 17.7% loss for  
plates not repaired  
and

17.5% Loss  
on Repaired plates.

Out of 20138 Transfers

3917	discarded for Cracked Var
402	" " Chipped
16	" " Holes
21	" " Mechanical
2	Thin Marquis

Cracked Var is 19.45% Discarded  
of the whole tested 20138

Cracked & Chipped is the problem

There are radial marks from  
Edge to Center about  $\frac{1}{2}$  to  $\frac{5}{8}$   
apart This is strange  
They are Very straight

Only on 1 side

Veneer Very flexible -

This shows our veneer has lots  
of uncondensed or semi condensed  
Resin Sol in alcohol or  
it would be so flexible after  
soaking several days in  
alcohol

Getting 10 Carbolec +  
6 grms 6/4 10 galls  
with 100 milly Para  
Condenses at once to  
a Resin Sol in alcohol  
In this resin that dissolves  
out + makes a resin  
exits in alcohol

Soaked reg blank 5 days  
in alcohol +

Swells up + opens on edge  
twice the size -

Strange thing about it is that  
the whole ~~is~~ Record is  
wormy, matted the Varnish  
Cuts like Celluloid -

The varnish stripped off shows  
worms which are very long  
deep



There is probably so much  
free phenol in it aggregated  
along these channels that  
alcohol has dissolved it  
out + it has collapsed



148 E

New resin 1 1/2 in this - not enough  
6/4 - told him if he could to  
add 1/2% more 6/4

Make up Enough 116 E Varnish  
to make 700 plates.

Bake 1/2 of the plates in  
one oven 1/2 in another

Leave out The Negroins

Transfer 24 from  
Each oven - Req blanks

Use same resin as you used  
on 147 -

Also 24 on 1293 blank

149 E

4  
Fred OH = Separate 25 lbs  
of Sandarac into the two  
parts = fusible + infusible  
ready for Varnish Expts.

done

150.E

Bake some 1" plate 3 on screen  
3 on astatos  $\frac{1}{32}$  thick - to see if  
Cant stop bottom of plate getting  
hot 1" & making bubbles  
Could use paper on Reg transfer

151 E

Cut Cardboard out same  
size as Varnish plate put 100  
under 100 plates + fill 10 <sup>bags</sup>  
alternate <sup>bags</sup> in oven with  
bags without cardboard  
Want dry by the top.

Also 2 or 3 bags placing Varnish  
over another not having Varnish on

New plan.

For every Big batch Resin

Make up 4 gal +  $5\frac{1}{2}$  6/4

no negroine - 1 gal 6 6/4 -

get report over plates + transfer

This will give a line on

proper amount 6/4 to use on

this particular lot of Resin

---

Bake at 212 Var plates

before flowing only  
for few seconds

152 E

~~Moore Run schedule on Reg  
Vaximel. Without Negrosin +~~

Start	100° Fahr
1 Hour	To 110
1 "	120
1 "	130
1 "	135
1 "	140
1 "	145
1 "	150
1 "	155

Hoffman give me  
some Negrosin -



I put 3 1" disc on glass under  
Bell jar with cup of strong  $H_2SO_4$   
15 hours - found Var No 7 see  
1<sup>st</sup> page, ~~from~~ the Var was well  
dried & at thin putty consistency  
but had several small bubbles

Whale has been out ordinary  
temperatures, bubbles may have  
been in when I poured it &  
failed to leave, but I did not see  
them - yellow color to  
 $H_2SO_4$

Its not certain they were bubbles  
resemble dust nuclei

Notice that in drying  
Waltper



Regular & the others do same

152 E

Expt CP Resin from Soda -

Dry 2 hours in air - Water jacket oven used

Ther in water jacket oven

Hour To	100° Fahr
1	115
1/2 "	125
1/2 "	135
1/2 "	145
1/2 "	150
1/2 "	155
1/2 "	160
1 "	170
1/2 "	180
1/2 "	190
1/2 "	200

Take out & put in plain oven

1	"	220
1	"	235

Cool off

See 1st page this book

Notes from the 5 old books

79-719 - fine powder especially  
scrubbed 100% good Transfer 91.6 Print,  
says Banner. This is first I have seen  
in the 5 books Examined that is good

Nov 22 1913 says up to date best is  
Phenol resin 4 wood double ground 1 Resin  
5%  $\frac{1}{4}$  50 passing 200 mesh  
Machines jar loading pressed 3 min  
Contact 4 min 1200 lbs -  
Scrapers flat with 2 Concave  
# 26 scrapers - Top plates put in  
by machine - Blanks Baked  $\frac{1}{2}$   
hour 180° Fahr Transfer Keg  
plates 45 cc 632 Var 15 mm  
500 lbs - Print 2 min heat  
3 min Contact 5 1000 lbs

1-26-16 Apparently Chloride of  
Ammonia Paraphenylenediamine  
& Acetate of Magnesia & Dardarae  
only slightly noticeable material  
30 lbs used

Old books

Vence clipped from Frances & Grace  
dissolved off  
Callipore Average 14.33 Good  
" " 12.75 Bad

Cross Blanks -

Water may play an important  
place in Varnish. Also surprisingly  
large amount of water can be used  
without apparently affecting the  
Varnish - on account of the great  
solubility of G/T in water some  
water would keep G/T from  
aggregating in Var in Oven

Paraphenylenediamine Hydrochloride  
is Sol Alcohol with little  
water in & more so when Varnish  
in Resin - & may be more  
active than G/T

1% of Resin in Var permit 1%  
Ammonia Chloride to dissolve  
using no penta or Paris -  
1-26-16 - perhaps more water  
would permit more Nitro to  
dissolve

### Old notes

All Varnish plates containing  $\text{NH}_4\text{Cl}$   
are surprisingly pock marked  
+ look bad yet transfer good —  
on Gessal blanks gives 80 to 100%  
good.

Resin containing an alleged 16%  
free Phenol - Saponified (500 gram)  
by  $\text{NaOH}$ . precip by  $\text{HCl}$  + filtered  
Acid solution contains 5 or 6 gm  
of what appears to be Rosolic acid  
probably some Resorcin - Resins  
probably vary considerably  
Alleged Rosolic in cold is solid  
but its viscous - dried to condensate  
with  $\text{CaCl}_2$  but didn't do much

Sandrac gives Bad bubbles the  
part dissolved by Benzol is clear  
& glassy. When warm particles out in  
front a spider web, mainly sol in  
alcohol

The part not dissolved by Benzol  
is light & infusible right on heat plate  
It sol in alcohol but after filtering  
gets cloudy again —

May be dissolved out free  
Resin - try alcohol -

### Old books

The Bengal resin gives no Bullfinch  
Whisker (1-26-16 if many of dissolved in alcohol)  
Hard to say which Resin does the  
business -

1500 grams Sandras dissolved in  
Benzol  $\frac{1}{3}$  is soluble the Resin  
Sol of Benzol is gummy stays  
semi viscous on hot plates at  
240 Fahr for days without

Changing  
The white insol is  $\frac{2}{3}$  of all

"Condensate Van in Blank  
powder N G without condensing  
with  $\frac{6}{4}$  in Vac Dryer

Records. Cut weather washed  
them in soap & water, then they  
no longer cut - (possibly action  
of free soda)

### Old Book notes

Plates Coated with Sesame Oil  
Cause Varnish to leave plate  
Whole in view - so they work  
Entirely destroyed -

Days Very promising  
3 mm heat 2 Contact 10 at 6000.

Chloride Ammonia gives all  
transfer OK & free sidebars -

5/8 Acetate Magna 12 Trans  
11 OK 1 Ck'd near hole & peeled  
" Beautiful yellow very  
even & attractive -

Varnish thinned by add  
alcohol NG  
The thicker the better -

2-4-16

Experiments on Varnish - 9  
notice that thick var entirely of  
plain sandrac dissolved in alcohol.  
The Nat (our seq) has enormous  
numbers worms all connected  
Can't say if on bottom or top  
also considerable no. number  
Very fine bubbles -

The skin formed is tough & it  
forms the moment it is placed  
on plate -

NO A Experiment

Run in Water Jacket over C

1" discs 5 of them seq var

- # 1 had 2 when put in - after had 3 one in  
2 none after 6-8 hrs  
3 none  
4 had 11 -  
5 none

A sandrac plate with half of sandrac  
dissolved in alcohol 13 bubbles



The Schedule of A Experiment was

Dried 2 hours in air

Started 4 pm

Reached 100° Fahr at 4:30

125° at 5:00

135° at 5:30 -

Took them out

### Experiment B

Reg Van dried 2 hours in air

no bubbles on any

Start at 6 pm -

" arrive at 100° Fahr at 6:40

120 7:30<sup>30</sup>

130 8:20<sup>10</sup>

1st Bubble appears 1:35 9:00

0 0 1:40 9:40

9 9 1:45 all small 4 approximately on Top Not Condens 10:30

1 1 1:50 11:10

3 2 1:55 11:50

0 0 0 1:60 12:30

1:65 1:10

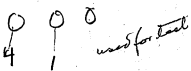
1:70 1:50

1:75 2:30

9 0 0 unstable condensing

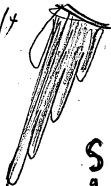
4 5

4<sup>1</sup> final run



10gms CP Soda process Resin  
 16" Alcohol  
 100 milg Paraphenylenediamine

# 8 275 milg 6/4  
 9 300  
 10 325  
 11 350  
 12 375  
 13 400  
 14 500



SS  
 a a

Notice a great PHENOMINON.

# 13 14 being 1/32 thick are

not fully Condensed, Cut like 1/2 flex strong  
 Condensed stuff whereas thin  
 parts are hard Elastic brittle & →  
 fully Condensed at this schedule

This is very bad,

Experiment with Soda Resin phenal free

#	%	64	Exceeding soft hot	ng brittle
8	2 3/4		Lift not quite	
9	3	"	Lift not so soft	cutters like - then 6.116
10	3 1/4	"	Lift fully Condensed	as compared to 8 & 9
11	3 1/2	"		
12	3 3/4	"		
13	4		Cuts Very rough seems plastic & f	
14	5		Best cuts even with sections	
15	Req		Cut like Celluloid but not must	
			call them req on this schedule	

Water Jacket oven Dried 2 hours air

11	1 hour	100° fahr	2 Run
	in 30 min	115°	2 30
	Several bubbles on	125°	3 00
	Each	135°	3 30
		145°	5 00
		150°	6 30
		155°	8 00
		160°	9 30
		170°	10 30
		180°	11 00
		190°	11 30
		200°	12 00
		220°	1 00
		235°	2 00

Wants more  
 6/4

think  
 may want softer

No Cracks

Req in this schedule is tougher in bending  
 cuts just as tough has less bubbles & better  
 than any of the others

Trioxymethylene Experiments.

CP Resin by Soda process - no free phenols

Not sol Alcohol

Alcohol + HCl

" + NH<sub>4</sub>

" + Benzal

" " + Phenol

" " " + Water

Must find a solvent first,

"

Watts (new) says, Trioxymethylene in sealed  
tube with very small quantity  
H<sub>2</sub>O<sub>2</sub> + heat is made soluble in  
Water + Alcohol Lous. It trying it

Note Phenomenon 

The Alcoholic Solution  
thick Varnish from the  
Sandrae which is insoluble  
in Benzal on drying  
Cracks in thousands of  
pieces on the transfer plate  
As a Contractor & Cracks  
this takes the Cake

The portion soluble in  
Benzal - when free of  
Benzal & a thick Varnish  
made by dissolving in  
Alcohol evaporates  
down but does not  
Crack it will stay for  
days on hot plate & not  
change just thick -

Req Var  
in  
as well  
This if necessary right work as well  
over the plate

Moore

Det acids over book case in Bedeance  
room Chem Lab

20 Regular Records 2 (2 others  
belong -

Two Cages of Req transfer plates

two Cage 116 E Transfer "

The 120 & 121 E Records

Records of 129 E & 130 E

He is attending to it

Moore will put ~~in~~ a Cage of  
Req flowed Req Var plates  
aside for 2 weeks -

1 Cage 1 work -

146 Records also thru 6/4/42

Got from Baldwin 12 <sup>6</sup>cc seal records  
Repeat for Crank.

Nearly every one radial short cracks

- 1 -  $\frac{1}{2}$ " in on music - angle  $15^\circ$   $\frac{1}{2}$ " long
- 2  $1\frac{1}{2}$ " long Radial - from ~~inner~~ Edge
- 3  $\frac{1}{8}$ " - in Music  $\frac{1}{4}$ " long radial
- 4 one  $\pm$  radial  $\frac{3}{4}$ " long another  $\frac{1}{2}$ " to the left  
further in  $\frac{1}{4}$ " long
- 5 starts edge  $1\frac{1}{2}$ " long radial bends left at  $45^\circ$
- 6 5 cracks  $\frac{1}{4}$ " long each starts  $\frac{1}{8}$ " from edge
- 7 1 inch in in Radial  $\frac{3}{8}$ " long - Sp. in record has  
another  $\frac{1}{8}$ " from edge goes  $\frac{1}{8}$ " in Music
- 8 group about  $6 \times \frac{1}{8}$ " from edge, scattered in Music
- 9 starts at edge radial  $\frac{3}{4}$ " in Music
- 10 "  $\frac{1}{8}$ " from edge goes  $\frac{3}{4}$ " in Music radial
- 11 Fibra
- 12 Radial at inside edge of Music 5 Crap  $\frac{1}{8}$ " seal

100 grms 6/4 requires for taking  
Care of the Ammonia evolved on  
the reaction of Condensation.

355 grms	Boric acid	
229 "	Glacial Phosphoric	
206 "	Citric	
180 "	Oxalic	None any good
105 "	HCl -	

Formaldehyde Combines with  
Diamid - (Hydrazin)  
Ammonium Cyanide -

Trioxymethylene Combines with  
Diethylamine -

Aniline -

100 cc Mercks old Amine Oil Pure  
54 cc Formaldehyde in  
flask with Reflux tube put  
on hot plate sitting on a Guller  
dish - 9 pm - the Condenser

Above 100 phenol to 54 Formal is  
proportions we use

Only goes to a white resin  
a no amount of added  
Formaldehyde makes it harder

153E Used too much Boric, when  
plate dried before oven, had horrible  
surface -  
on baked each plate has 4 to 6  
 $\frac{1}{32}$  bubbles & a seam of microscopic  
bubbles on surface  
Went less Boric so it will  
show good surface ~~and before~~  
filling in oven

Stripping it from plate & placing  
it on hot plate covered with  
the plate, both up & makes a  
porous sponge

NG not promising

Experiment to Combine an  
acid in the Varnish to take care  
of the Ammonia given off in the  
reaction -

Used CP Resin Soda process

153 E Experiment

10 grams Resin -  
16 " Alcohol  
100 Mily Para  
500 Mily  $\frac{6}{4}$   
1.775  
" 775 gms Boric acid  
" 300 Mily water

OK Works OK  
on plate -

Condenses spongy  
ng



154E All puffed up & covered  
NG Kopelen

154E

10 Gram Resin. CP-  
~~100 ml of~~ 5% NaOH & little alcohol  
~~100 ml of para~~ No para  
500 " 6/4.  
~~100 ml of phenolphthalein~~  
300 ml of water

~~ATG~~  
~~Don't disolve &~~  
~~precipitate out 6/4~~

155E Each plate has ~~by 1000~~

1 has 2 bits D15 3 of 005

2 " 2 " 003

3 " 2 " 020 3 of 005

4 " 4 " 005 note

Van does very thin has celluloid tough cut not fully Condensed - it is flex - not perfectly Elastic

After further Condense on hot plate it still cuts somewhat like celluloid

NOTE Lint ripped it from plate had the outside surface next the hot plate for 10 min putting a plate over it

Now there is a reversal the strength of breaking is now with the inner side (to the side next hot plate) in compression - This is what occurs in transferring

Aniline may or may not be of value it works OK in CP phenol free Resin -

155E

10 grams CP Resin

16 " Alcohol

100 Mfg Para

575 " 6/4

~~900 " Croton Oil~~

1500 " Aniline oil

300 " Water -

Preccps 6/4

Substitute

1 1/2 grams Aniline oil

11/5  
5/4

group  
156 = ~~153E~~ 153E 154E 155E 156E

Cold	1 pm	
2 "	100°	6°
2.40	115°	40
3 20	125°	40
4 pm-	135°	40
5 "	140°	60
6 "	145°	60
7 "	150°	60
8 "	155°	
9 "	160	
9.40	165	
10 20	170	
11 00	180	
11.30	190	
12	200	
12.40	215	
1.20.	235	

160-9 hours

Citric Very soft as water on hot plate condense  
strip both pieces - laying on hot plate bubbles  
comes up - rain  
after condensation on hot plate still further  
Very soft hot - brittle fragile Cold

NG - 20 or 30 bubbles  
on each plate

156 E

10 grams CP Resin Adhesive

16. " Alcohol

100 Mly Para

500 " 6/4

1 grain Citric acid

300 Mly Water -

" Works OK except

Para don't go in  
Very well had felt  
some black clots  
out,

C = Most of the Veneers are too thick  
 + these are Not hard Condensed  
 except a couple of thousandths  
 on outer surface + on thin  
 Edges - the balance cuts like Celluloid  
 long shaving laugh -  
 The whole has usual brittleness

Have put them back in oven -  
 1 Taken out .250" tabs Ok some bubbles  
 to have shrunk to  $\frac{1}{32}$  - Still cuts like Celluloid  
 on thick part - hard on surface  
 It bend better than 235 stuff -

275 - left the plate free <sup>but joining edges with knife</sup> 35 Phenomena

It has shrunk to about 25/1000  
 Fully Condensed - don't cut like Celluloid  
 Not very tough - but elastic, strong after annealing  
 Right on hot plate captures all bent double  
 dents good when hot -  
 The bubbles at bottom shrunk in



300 - Touched edge point knife left ~~plate~~  
 plate perfect - "thinner still" 15 to 18/1000  
 pretty strong

325 When cool both left from plate  
 perfect in shape ~~plate~~ loose, just plate  
 under a dent - I think this too hard

Expand C in Water Bath

Dried 2 hours in air

Reg Van - Taken in Vac Chest 3 days

Started 1230

got to - 100° at 1.00 per \$60/1000  
 115° at 1.40

Bubbles one 125° at 2.30 if 15/1000 this  
 top bubbles 135° at 3.10 would be no  
 140° at 4.10 bubbles  
 145° at 5.00

Open Bottom 150° at 6.00  
 155° at 7.00  
 all are about 160° at 8.00 Condensed +  
 2/1000 from 165° at 8.40 Big bubbles on all

Bubbles 170° at 9.20  
 175° " 9.50 No increase of  
 180° " 10.30 bubbles after 165°  
 185° " 11.00  
 190° " 11.30  
 200° 12 mid night  
 215° 12.40 -  
 230° 1 20 am

The plates 1" are poured very heavy  
 This probably accounts for bubbles  
 Bubbles don't go thru to face of  
 plates - OVER

Think we can go higher on our schedule  
 Rig Up an Arch for a bird Cage a  
 Barking up to 250 1 hour  
 Another Cage 275 1 hour  
 Another " 300 1 hour } Rag plates  
 Another 325 1 hour  
 Another 350 1 hour

### Phenomenon

I notice the stripped veneers  
 are 3 times stronger when  
 bent so outside is in  
 compression than it is  
 opposite,

157 E

Blanks made from Fuller Mill -  
 90% them 180. Coarse left in not  
 screened

Use Regular Transfer plates  
 Blanks better 225 high 210 low 500 from 500 lbs  
 on small press 7/8 in 1/8" sample 1/3 + lot 344  
 12 blanks all OK

~~Print~~

Print 6-30k 1 prop 2 Arch marks  
 11 Trapped 10 OK 1 small bluish - all released from

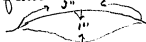
Ro	fine	
1	good	
2		
3		
4	fair	
5		
6		
now	Ruff	

The Coarse powder  
 knocks it out.

Weld poor can run knife  
 under to chip off 1/4 dia chip. Must get better  
 weld on fine grain blank. 2. then lampblack or  
 NH<sub>4</sub>Cl - Edges are fine

5 ft drop - 1 broke 1st drop  
 2d 11 drops + didn't break -

Must blow flaws in 1st one - it was poor  
 print



158E

Alcohol saturated at boiling  
heat with acetate of Magnesia  
Takes up very considerable  
portion of it. The Alcohol was  
86 cc Water 14 cc -

Used 10 CP Resin in a process  
16 grams above alcohol  
Containing Mg acetate  
100 mg para  
500 mg 6/4

" Had to add a little alcohol  
Resin Very hard to dissolve  
in solution -

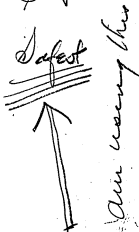
1 = 3 large 100 bub. all one-sided  
It's a big left-gov  
Solid part sticks to plate. dull appearance  
Not quite condensed  
Not promising -

Aniline 100 cc Formaldehyde  
54 cc Condenses it to a  
white right off - fresh  
formaldehyde & prolonged  
heat don't condense it  
any more. its a soft  
fatty solid - melts on  
heat plate after cooling  
its the same <sup>to red when</sup> ~~white~~ <sup>safe</sup>  
~~and sticky -~~  
~~fully like ordinary solid~~

I have put some along  
6/4 sol in water in  
to see if it carries further  
the white stuff not soluble  
in alkali 10% or alcohol

This is the schedule we use

min To	100° Fahr	Safest schedule
30	120	Safest
40	125	
60	130	
60	135	
70	140	
80	145	
90	150	
100	155	
150	160	
80	165	
60	170	
50	175	
40	180	
40	185	
30	190	
30	195	
30	200	
30	215	
30	225	
30	235	
30	250	
30	275	
30	300	
30	325	



Afterwards { 250  
275  
300  
325

Hold

17 1/2 Hours

18 Hours

Proposed Dure Schedule for Experiments

30 minutes to	100°	100 min	100 min
30	120	120	120
60	125	125	125
60	135	135	135
70	140	140	140
80	145	145	145
100	155	155	155
90	160	160	160
70	165	165	165
60	170	170	170
50	180	180	180
40	185	185	185
40	190	190	190
30	195	195	195
30	200	200	200
30	215	215	215
30	230	230	230
30	235	235	235

60 | 940 (15 Hours 40 min)


60

3480



This is a serious defect - This would not strip from plate as it was not Condensed enough

The big bubble is in #1 is on top burst open probably 015 went next to plate,

 binds thus  
much - on the even one before breaking

159E ✓

Make some regular Var

10 Rag Resin 16% Resin

16 Alcohol

100 milg Para

100 milg Benz of Sandarac

no tree phenol.

4 Discs 550 milg 6/4

### Safe Schedule

- |     |                  |                  |         |
|-----|------------------|------------------|---------|
| 1 - | 1 $\frac{1}{16}$ | 2 $\frac{1}{16}$ | all Top |
| 2   | 1 $\frac{1}{16}$ | 1 $\frac{1}{16}$ | 1 000   |
| 3   | none             |                  |         |
| 4   | 2 $\frac{1}{16}$ | 1 010            |         |

Not loose on plate - flows to one edge  
on some No. 3 plate even\*

by getting knife under edge it strips off  
perfect on even plate Callipers  
with 018\* perfectly Condensed

Another one that went to side Callipers  
- 064 or was not perfectly Condensed with  
like soft Celluloid see left hand page

160 E ✓

10 Resin 16% Resin

16 alcohol

100 Mlg Para

400 " Bengal Sandrac

48 Dico 550 1/4

Safe Schedule

in thick part

1st 1 1/16 1 040 1 035 2 03 1 015

2 none

3 1 010 -

4 1 1/16 - burst

170 4 - has thick part yet it came off plate by cutting around edge of plate + trying to under run with knife Big part @ thick part Callipers 050 - Big but has very little wall next to plate

Thick part cuts like celluloid but harder than 159 E

All plates have run to one side Cant make breaking test

None of the others have this because no bubbles  
where very thin

#3  breaks

#3 - Calliper 0.31 - not fully Condensed  
in thickest part,

This is Sandrac

161 E ✓

10 Resin 16%

16 alcohol

100 Para

800 milg Benzol Succinic

550 " 1/4

4 Discs

Safe Schedule

1st	3 of 025	1 010
2	1 050	1 030
3	1 1/8 050	2 of 020
4	030 020	2 of 015 2 of 010

Where even fully Condensed -  
Calliper Center 040 -

Leaves plate when under run by knife  
It also shows that at some time in  
process it has lifted clean of plate 1/2  
to area but shrunk back.

NP1 Shows at thin part a lot of Cracks  
in all Cases starting from Bubbles  
The 3. 1/2 ones ~~no~~ no crack from the 010 bubble

162

Does not curl much on hot plate after  $1\frac{1}{2}$  hours  
Cut. Very hard - rather brittle even hot but cold it strong

8-6/4 seems altogether too much 6/4 for low records

If Veneer plates could be made to stay on plate + transfer + print Ok! don't think the veneer would ever change or crack as it would be set + Chemical changes fully carried out.

on hot plate 12 noon  
at 3:20 - Very hard to dent or bend, not flexible at all

162 E ✓

10 Resin 16%  
16 Alcohol  
100 Miq Para  
100 " Benzol Sandrac  
800 " 6/4  
600 " free phenol.

4 Wires

Safe schedule

1	2 of	plates uneven thick	030	
2	2 of	010	2 of	003
3	1 of	030	1 of	020 in the thick
4	1 of	020	1 of	010

Hard to strip - got 7/10 off 1 piece no left.  
Condensed nearly all - bits heard in the thick part  
Can't get breaking test

Try. hardness on hot plate + also  
Rm to 325 -

163 E

Hoffman Reg Var  
not filtered

4 ~~plates~~

of the 4 put them all in  
with 164 E to get same  
Conditions  
Safe Schedule

164 E 1

Hoffman Van  
4 plates Filtered

Dafs ~~Schedels~~

165

Does not curl much after being  
on hot plate for  $1\frac{1}{2}$  hours

on 12 noon at 330 pm  
dent good -

6 pm off to test fully condensed  
hard cut - fairly flat, softens  
will dent slightly OK -

put back at 6 pm

165 E v

10 CP Resin Soda process  
16 Alcohol  
100 Mily Para  
300 " Bengal Sandrac  
400 " 6/4

4 plates

Safe Schedule

1	3 of	050 -	4 of	004	1 of	020
2	1 of	015 -	2 of	003		
3	2 of	015 -				
4	1 of	050 -	1	020	clotting	

Cannot get off plate -

Run to 325 - + test on hot plate  
before running to 325 -

Chipped piece out thick part only  
horn condensate =

This is pretty hard dont curl lays  
flat on hot plate for  $1\frac{1}{2}$  hours  
It dont dent well or is very  
little plastic not sure it will  
permit of printing -

on hot plate 12 noon  
at 3:30 pm flat & even  
scarcely dent at all  
6 pm -

Cuts very hard, nicks it gave on broken  
Edge cracks but not <sup>when</sup> worked on Edge  
no sign of honey cut fairly strong

550 =  $6\frac{1}{4}$  a little too much -  
300 Sandrac is bad -

166 E ✓

10 CP Resin Soda Process  
16 Alcohol  
100 Mfg Para  
300 Benzyl Sandrac  
550 Mfg  $6\frac{1}{4}$  4 plates

### Safe schedule

- 1 = Left plate - blistered 3 subs #120  
blister 1  $7\frac{1}{2}$ " dia 3  $\frac{1}{4}$ " dia several  $\frac{1}{4}$ " dia  
It is nearly condensed at 060 thick - this  
would be ok.
- 2 = Blistered  $7\frac{1}{2}$ "  $1\frac{1}{2}$ "  $\frac{1}{4}$ " several  $\frac{1}{4}$ " dia  
Loose from plate with slight jaw
3. Blister 2  $7\frac{1}{2}$ "  $\times$   $\frac{1}{2}$ " 2 subs 060 2 of 020  
Loose by slight jaw
- 4 1 sub 070 1 020 1  $\frac{1}{4}$ " blister high



167- Hoffman Reg-filled Van  
Wipe plates Alcohol  
4 plates  
Safe schedule

168-

Hoffman filtered Van

Finger Marks all over plates

Use alcohol -

4 Disc

Safe Schedule -

Actual Schedule 158 To 181 tests run

230 psi Cold

3:00. 97  
 3:40 120  
 4:20 126  
 5:20 132  
 6:20 138  
 7:30 140  
 8:50 145  
 10:20 150  
 12:00 156  
 2:30 161  
 3:50 165  
 4:50. 169  
 5:40 175  
 6:20 180  
 7:00 184  
 7:30 192  
 8:06 198  
 8:30 200

30 min more to 218  
 30 " " 235  
 30 " " 235

It varies on a min or less  
 from Safest Schedule  
 on other pages -

169-

Hoffman Reg. followed Van  
 Wipe plates with rag 10% NaOH,  
 & clean afterwards clean rag  
 Use alcohol  
 4 Discs

Safest schedule -

170

Hoffman filtered Van

Put plates on pad of paper  
so top gets heat.

4 Discs

This makes 5000 holes in face of  
blank for dip vacuum to run in  
30 seconds polish holes  $\frac{1}{2}$  the  
size - 2 min NaOH, holes  
very large  $\phi$   $\infty$   $\phi$  like this  
takes up  $\frac{1}{3}$  to  $\frac{1}{2}$  the area -  
Think KOH penetrates  $1\frac{1}{2}$  @  $2/1000$   
underneath fine shiny  
surface - It's the particles  
highly condensed shell that  
is apparently attached

Moore 20 sec 10% NaOH

will be OK

Alcohol don't change it,

Note - If after NaOH stuff is dry  
use alk HCl put on it & dip  
dry cracks run from hole to  
hole - Enormous shrinkage

15 min NaOH, 90% attached net work  
but by scraping cant be over  
• 002 deep -

131 E Moore didn't make -

Use 10% Soda solution  
flow over 20 second rinse  
off under hydrant, do wipe

Dry & transfer 12

Reg Var 1293 90% Fuller

Mill Material - also 30 sec  
& 12 more 131  $\frac{1}{2}$  E

Notice surface cotton &  
microscopic pits which  
should anchor

Note if I leave the 10% NaOH on 1 min  
it eats out hole about  
60 holes in area of micro  $\frac{1}{4}$  I believe

Seems as if they were invisible but also No  
& NaOH eat out the fine top film & exposed  
them they are present all round

don't use with fine material

171 E ✓

10 Resin -

16 gms Alcohol

100 mg Para

550 " 6/4

800 " Sandrac Usolin Benzol -

1 = 8 bluelin  $\frac{3}{8}$  to  $\frac{1}{2}$  4 lbs. 062  
Loose by Kunselung (fully Condensed)

2 Loose - 4 - 040 lbs 2 bluelin  $\frac{1}{2}$ "  $\frac{1}{2}$

3 Loose Poly bluelin 20 lbs

4 mostly loose 1  $\frac{3}{4}$ " bluelin high 2 050 lbs

192 E ✓

10 grams Reg Resin -  
16 " Alcohol  
100 mesh Para  
560 " 6/4  
200 " Davonac Insulin Rezagol.

1 = 2 tubs - 040

2 = Slip plate thick part not quite covered

3 = 5 group bubbles " " 008

4 = no bubbles -

Not stripable dont see any lifts -  
Run to 325 -

325° Condensation shows Venners  
hard lifts + bad circulation spots -  
Not promising  
↓

Note - started 230 Safest Schedule:

1020 pm Temp 150

173- has  $\frac{1}{16}$  bubbles 3 or 4 to each  
seems down in the Varnish - not on top  
This Var was very thick + viscous  
when flowed should have had  
more Alcohol

161 has a few Top bubbles small

159 - 160 no bubbles

176 - 177 - 178 - 179 - Has no bubbles

180 - 181 - 162 - 165 - scarcely any

166 - has few small bubbles

171 172 + 158 none

173 EV

10 grams Reg Resin  
19 " Alcohol  
100 mg Para  
550 " 6/4

3 grams Sandrac Insoluble in Benz

Had use 3 Extra Alcohol to get it  
to dissolve the 3 Extra grams  
Resin of Sandrac

- 1  $\frac{1}{8}$  2 of 050 2 of 040 1 020
- 2 blow  $\frac{1}{4}$  1  $\frac{1}{4}$  2 of 040
- 3 2 of  $\frac{1}{16}$  2 of 050
- 4 1 of 060 1  $\frac{1}{16}$  Resin fills all underneath

Has lifted in several places slightly  
It's not condensed - brittle.

None from plate -



Continued from preceding page

Row 1<sup>st</sup> first 1 bubble. 157 130am  
 2<sup>nd</sup> 5 on 1 - 1 on another 160  
 3<sup>rd</sup> 4-2-2-5 bubbles 161  
 4 6-3-3-1 " 173

Row 2<sup>nd</sup>

1	2-1-2	176
2	1 1	177
3	2-2-1-1	178
4	none	179

Row 3-

1	none	180
2	2-2-1-2 small	181
3	2-1-2-1 fine	162
4	6-4-2-2	165

4<sup>th</sup> Row -

1	big big small small	166
2	5-5-2-2	171
3	5-4 0 1 small	172
4	2-1 0 0	177
	4-2-4-1 all big	158

174<sup>hr</sup> Moore Bring down 2  
 Cages filled with Transfer  
 plates that have been from  
 the oven - ~~but~~ I want  
 to run them up to  
 325 Deg Fahr, & if they  
 come loose will print  
 them on short schedule

Those that don't come  
 loose ~~print~~ <sup>transfer</sup> on short  
 schedule - & then  
 print on short  
 schedule

175 E Moore 2 bird  
Cages full of transfers  
that has been there  
over - I will run  
them to 275 deg  
you transfer them  
on 10 minute schedule  
of Prent

# 4 had left plate in oven & curled up

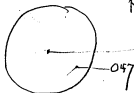


Test softening on Hot plate.

176 E v ✓

10. Reg Resin  
1.6 grams Eth alcohol  
100 mgly Para  
780 mgly G/4  
100 " Benzal Sandrac  
600 " Tricresphenal

- 1 - 5 of 060 3 of 040  
2 1 of 040 1 blister 050 1 blister  $\frac{1}{4}$ "  
1 blister open to plate  
3 2 - of 025 open clean to plate - 2 blisters  
 $\frac{1}{8}$ " dia show dark next plate dark  
Examine with Micro-  
plates are fairly even



' Condensed nearly if not full -  
All leave plate by a slight jar

Try softening on hot plate

177E ✓

✓

10 Resin  
16 alcohol  
100 Mily Para  
100 " Benzal Condensate  
750 " 6/4  
600 " 1/2 phenol

4 = 1 040

3 none

2 1 clean thin 015 - 1 black dark 1/8"  
1 small black 035

" 1 1 025 clean thin

All free from plate - 3 flat 1 curled a little, had nick 1 with knife



 curved but not flat

\* Calliper of broken 015 thick 030

fully Condensed no lifts (except the curls)  
on - that shows no sectioned lift

Try softening on hot plate

178E ✓

✓

10 grams Resin-

16 " Alcohol

100 ccly Para

100 " Bengal Sandrac

725 " G/H

600 " Trice phenal

- 1 | 1 050 clean then 1 020 then 1 020 then  
Curled up no previous signs of scaboid  
left.
- 2 | 1 clean then 030 2 of 010. nearly then  
flat
- 3 | 1 of 030 rather than 1 of 010 not then  
flat.
- 4 - 2 of 025 not quite thin, it helped  
during process now flat.

All loose from plate by jarring

179 E ✓

✓

10 gms Resin -

16 " Alcohol

100 " Para

100 " Benzal Sandrac

700 " 6/7

600 " Free Phenol

"  
1 none  
2 none  
3 none lifted 2 places now flat  
4 none

The brass plate slight jar came off  
Nickel required Very hard jaws -

by cutting <sup>No 1</sup> face of head + underrunning  
with knife came off with 1 crack nearby  
to center - These will not show to  
plates in transferring - Even thin - <sup>Thin - thin</sup> ~~Thick~~ <sup>Thin</sup> ~~Thick~~ plates  
Calliper 023 015

is cracked one -

# 1 at thickest is nearly condensed not quite

# 3 got of uncracked by underrunning with  
knife starting thickest edge + periscope  
receiving off top edge  
Calliper 003 thickest 015 thinnest

Nearly Condensed, + OK on thickest part

Tough Cut in thinnest - This is good  
Var at this schedule even with above  
Calliper if it softens OK -  
Try heat plate -

180 E ✓

10 qms Req Resin

16 " Alcohol

100 Wely Para

100 " Benzol. Standard

675 " 6/4

600 " Free phenol-

1 no bubbles

2 "

3 "

4 "

faintly even plates.

1<sup>st</sup> Hard to strip got off 3/4 of a complete (disc showing it will transfer good, not quite fully Condensed in thick part. Think it fairly tough - believe this is ok. Vase mark, Run to 325 + also test on hot plate -

#4 on knocking Cracks starting from bubbles) will not come off.

181 E ✓

✓

10 Resin

16 Alcohol

100 methyl Paraffin

100 " Benzof Soudrac

650 " 6/4

600 " ~~Hexaphenal~~

1 = 2 020

2 1 040 2 010

3 2 small dots think they are S.E.C.C.s

4 3 of 010 1 020 Top -

Plates fairly even



Oven test -

With Negrosin		without Negrosin
Raised	16%	0.7%
Wrinkled	1.5%	4.1%
Chipped	5.3%	1.5%
Dumple	—	2.0%
Unworn	20%	00
Bubbles	4.0%	8.2%

Passed without Neg.

OK 70% as follows 83.3%

OK Unworn 1.3 00

Small Bubbles 00 OK 63.5% OK

Palated 3% 0.3%

Notes -

Size of Phenol scum dissolves in the following

Naphthalene

Paraffin

Ceresin

Carnauba

Stearic Pitch

Canolin

Tetrachloroethane

Artificial Camphor

Bergol Sandrac

Amilone Hydrochloride

Tetra chloro naphthalene

Manilla Copal - used if Manilla Copal 5 of other

Candelilla Wax

Montan

Native Camphor

2-7-16.

1412 500grms 500 lbs press small Press

Blades on loaders lowered slightly  
Powder packs close in the loading machine  
Extra bottom plate used to raise the  
mould to clear hammers

No extra bottom plate used in small press  
Powder packs close in small press  
Lifts showing up running Zig Zag from  
center of mould to Margin.

1/8 inch scrape off on turn table  
Weight of blanks 410 grms

Caliper 210 to 220

Color light center dark + small specks  
Leaves moulds cloudy with small  
white spots.

Phenomena When a blank

(1412) Calipers so there is  
only a difference of .007 no  
RO +  $\checkmark$  or  $\checkmark$  of 12 to 20  
it shows RO in proportion to

Out of Calipers all should  
show .007 to pass

1293 Blank - 10

5 Wood 2 Chalk 2 Lac

No 1412 will be the  
blank with the above proportions

ground in a Fuller Mill  
90% thru 180 mesh  
with the Coarse sifted out  
So all goes thru 180

Mesh by a Newage Screen  
Screen does 300 lbs hour 150 fine -

Those which exceed this limit  
try putting against face plate  
& truing up with a Diamond  
Tool

182

All released freely

RO

1

2

3

4

5

6

HTT

Non

11

good

Finest surface ever  
attained —The edges of our blank  
must be built up —4 printed none OK all poor Marquin  
- 1/2 to 3/4 in

Looks at points of good  
pressure the weld is good to  
chips scarcely can understand  
knife —

Want lampblack well mixed. 5%  
in Dip Varnish to get finest  
surface

182 E

1412 Blank <sup>1293 all from 180 mesh -</sup>  
<sup>Fuller Mill & New York Station</sup>

Standard size Dip

Transfer 12 with even  
flow plate Reg Var

Print 6 —

Transfer 12 1 OK - 11 big blisters

Where left are blisters shows big  
hills — This shows that after  
dipping we should bake plates  
couple hours not above

135 Fahr to get all muck & gas  
out = looks as if we will be  
battered with big left, may have  
to make blanks at lower than  
1000 lbs. or use thicker var  
or get even plates

Good effect =

RD  
1-1  
2  
3  
4 IIII  
5 IIII  
6 IIII  
now

Fine IIII IIII

good IIII

fair I

Ref.

10 weeks from best

Baking causes pits in the blank - not good -

Welds where good Edge very good  
where thick Varnish on edges  
poor weld Can unroll run 4"  
& not to where good Edge

183 E

1412 blank dip in irregular way - dry 1 hour then put in Oven and dry 2 hours at nat over 135 degrees

Fahi - Use even plates

Transfer 12 Reg Van

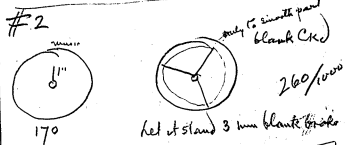
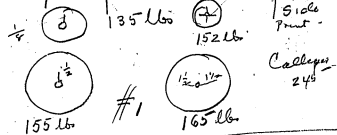
Print 6 -

Tramp 12 11 ok 1 left cracked

Print 6 - 6 ok except 3 poor marks

78 B Reg Blank, phenol free  
 16% Resin  
 6 3/4

Breaking Tests  
 78 E Record 2" scale



1226-Record-Triple blank in oven to 160 Foh  
 kept 160 for 1 hour then to 180-kept 15 min  
 then raised to 210 kept for 15 min  
 plunged in cold water 30 Foh  
 Record 147 lbs 3 cracks 3/4 long 6/64 dished  
 showed a crack 1/2 long at 46 lbs  
 allways - 160 lbs broke 6/64  
 Ck 1/2 long at 46 lbs  
 Blank 193 lbs 2 cks 3/4 long 8/64 dia  
 was also 1/2 inch long  
 otherwise 203 lbs 1 ck 5/16 long 9/64 dished  
 otherwise 1/2 inch at 160 ckt

Breaking Tests

U.S.  
 Messing 169 7=1" ck Dished 6/64 - 90/100  
 " Down 160 2 1 1/2 " 16/64 Dished  
 Messing 200 3 cks - blank broke 7/64 Dished  
 Messing Cold pressed  
 Messing up - 192 lbs - 1 ck 1" 7/64 Dished  
 " down 207 4 cks Cold pressed 8/64 Dished

1226 Reg - Annealed 30% ground 60 ckt in -

Put in oven & heated to 160° Foh  
 for 1 hour plunged into ice  
 water 30 Foh (salt) -  
 No Cracks

Break test  
 Record

180 lbs 3 Cracks 3/4 long 7/64 dished  
 170 lbs 1 " 1/2 7/64 "

Transfer

205 lbs 1 crack 1/2" long 8/64 Dished  
 193 " 1 " 1/2 7/64 "

See further on

184E

RO	fine	
1	good	
2		
3		
4	fair	
5		
6	Ref -	

184EA

RO	fine	
1	good	
2		
3		
4	fair	
5		
6		

184E No weld - Soda dont do it  
Can under run knife 1/2 inch -

Dipped is slightly better

Dipped one welds fair under run to  
bring off 3/16 chip -

Note 185 X all fine - these  
very few - SODA BAD

Not Dipped 184E 6 transf 6 OK -  
Print 3 cracked Marquis 1 poor print  
1 chipped Marquis by pinching marks  
1 OK

184EA - Dipped - transf 6 6 OK  
Prints 4 OK 1 OK 2 Marquis  
2 poor print

184E

See ahead

Take 24 Reg Var plates  
Wet all over with 10% Soda

Keep soda on for 30 seconds  
wash off with Running water

Wipe dry Don't Dip

Wait till you get 12

1412 blanks + transfer

12 print 6 -

Flow soda over thick after 30 seconds  
was off by holding under faucet  
shake + wipe dry

184EA Dup but dip the  
blanks

185 EX See pages ahead  
for a Reprint

Will Dip Hoffman grinding  
Lampblack in impaint mill -

Dip 24 14 1/2 blanks bake  
at 130° for 2 hours

Transfer with Reg Var

Print 6 -

Transfd 12 8OK 2 Cooked Carc

1 left chd -

Printed 6 4OK 2 poor print

RO

1

2

3

4

5 1

6 4 1/2 1/1 1/1 1/1

now 1/1

Fine

good

fair

Very good Weld  
to chip generally less

Lampblack good

Should be ground finer  
to get it better Car replace  
Negros

185

Blanks 90% then 180 -  
fuller mill grinding

Dip Varnish has 5%

Lampblack -

3 Transfd 3 OK

Print 3 OK -

RO

1

2

3

4

5 1

6 1 1

2 1

Fine

good

Weld good where music

is -

Moog didn't grind it just  
stirred it - Must be  
ground

5-4OK  
1 pp good

Reprint

RO

1

2

3

4 1 1

5 1

6 1 1 1 1 1

now 1 1 1 1 1 1

Fine

good 1 1 1 1 1 1

## Breaking Tests Continued

2 Discs from 117 E

Calliper 240-

170 lbs - dished  $5/64$  2 Cks  $1\frac{1}{2}$  long

Record down

170 lbs dished  $9/64$  3 cks  $1\frac{1}{4}$

2nd average Calliper 250-

172 lbs dished  $5/64$

2 Cks 1" Long

Record down

160 lbs dished  $5/64$

3 cracks  $\frac{1}{2}$  to 2" long

124 E Calliper 265

Max up 160 lbs dished  $5/64$  1 ck 1" long

Down 200 lbs "  $7/64$  Cks  $90^\circ$  apart

Calliper 265

175 lbs dished  $9/64$  1 ck  $\frac{1}{2}$ " Crack shown  
up  $\frac{1}{16}$  long with 40 lbs

Max down 166 lbs dished  $5/64$  - 1 ck  $\frac{1}{2}$  long  
Cracks  $175^\circ$  apart.

126 E

115 lbs dished  $4/64$  Calliper 175

another Calliper 175

80 lbs broke ~~at~~

182 E 1412 blank (New) - first surface yet attained

Calliper 235

Record up - 195 lbs broke -  $7/64$  dished

Record up 80 lbs  $3$  cracks  $1/4$ " long  $2\frac{1}{2}/64$  dished

Record down 170 lbs broke  $16/64$  "

225" thick -

Break Very Suddenly

1. Reg Records Reg Blanks & Vals

Calliper	Weight	Cracks	Dish	Notes
240	210 lbs	broke	$9/64$	dish 1100
230	183 "	ck 1" long	$7/64$	.109
	175 "	ck 3 of 1" to 2"	$7/64$	.109
230	130 cks	$2 \times 3/4$ long	$5/64$	.078
	148 "	ck $3/4$	$6/64$	.093

Broke	Weight	Dish	Calliper
	210	0.140	248
	183	0.109	230
	175	0.109	---
	130	0.078	230
	148	0.093	---

J E 2 OVER

Method Edgewise (both sides) now omitted



1412

Callipers  
235<sup>+</sup>

Brake  
195 lb.  
80

Dashed before bkg  
#109  
037

2-7-16

Resume of Expts

158 to 181 - Is that  
16% Resin 6 free phenol -  
1 para 1 Benzolal Sandrac  
with

7 - 6.75° 6.5 6/4 + what

I call safe schedule is best

Varnish in that series

+ that 6.75 is the best

until I see result of last  
run in oven to 325° Fals

to see if soft enough & flexible  
enough for transfer & print

6.75 6/4 bends best of those  
I could test.

I believe 6.5 is ok + Even  
6 will be ok —

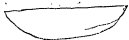
Notes-

Lots 158-159 160 161 162 165 166  
171 172 173 176 177 178 179 180 181

tested after Safe schedule - & after  
they had been run up to 325° Fals

All plates had loose & fine veneers  
that didn't have on 1st schedule  
to 235° - all thin & very  
hard

179 - slightly Curved - put on hot  
plate & I weight put over for 1/2  
minute found it Cracked clear  
across.



picked this up quicker it bent



then broke showing it was  
very hard & probably, might  
not make a good field on

permuting - 179 is Reg 22% free phenal  
Van 14% 6-4 -  
Cut. Very hard but don't break out much


fractured part is about 036  
which shows its has great bending  
power Hot plate is 286°


180 perfectly flat disc - bent thru hot

also it dented when hot showing it  
will print ok - it bends cold even  
better than 179 - ~~still~~ Calliper  
checked part 033,  
better preparation apparently than  
179


181 a Knife shows dent & will print  
but it don't bend hot as well as 180  
& 180 not as much as 179 -  
Evidently 179 bends better hot &  
the Extra 1/4 bondinging it more

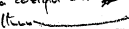

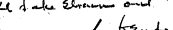
167 = bends ok on hot plate, bends cold fair  
Cuts hard, not chippy

178, Softens Easy dents easy bends on  
hot plate  Cut ok but hard

had  it bends fairly good  
no brittleness about it - but all  
are a little curved by the higher  
temperature, they seem to be thicker  
than 179-80-81+

177 -  bent -

put it convex side down on heat plate &  
weight it went flat in 20 sec raised  
plate at spring convex  thin

It dents OK,  
Left on hot plate weight on ~~20~~ <sup>two</sup> minutes  
Spring back thin   
nearly flat on hot plate after 5 min  
under heat & pressure, after cooling  
spring back a little  <sup>to</sup>  
shows time will take Elmin out  
somewhat.  Bends cold

Cuts little more brittle than 79-80-81

When thin bends very good - think its  
thinner than the heas 6/4 ones -  
This would confirm theory that  
the excess phenol in absence of 1/4  
Evaporates away. Phenomenon

These Veneers were all curled some

176 = This has the most 6/4 of the  
five phenol series - 7.8 about regular  
Veneers are only a little curled  
these are the one had 2 big beads &  
blackish to bluish - they show no  
sign of ever having raised in or over  
Dents Very Easy on hot plate bends  
fine hot bends cold only fair  
thin part bends very much cold OK

It is strange that apparently the  
more 6/4 with Resin & 8% 176's  
added the easier it dents hot  
better it bends hot, Cuts ok &  
practically bends cold & okay!  
straight better

Outside of bubbles 7.8% 6/4 best  
Think Soudron 76 or any Resin leads  
to Contrast more than Combustion & Conch Resin

158 is NG Brillle

165 - All loose on 325° heat Curled a little - Dint fuse -  
Extremely flexible hat can do anything with it - goes quickly flat  
Thin will work ok full transfer + Print + will squint & think  
Dont bend with Cold Has not anything like the strength of 176-7-8-49  
Cold cuts slightly chunky too much Sandras & queen

172 free & some Curled shows hind previous lifts in 15° schedule bad spots also in each one  
Dont test net promising

171 - brillle Cold cuts good not promising -

166 - Released no test look unpromising

173 - Very bad - all flaking small Sandras Very bad.  
Think Sandras no good either Bengal or not, not 50% horrible -  
Think proper schedule will do the job in any event  
1/2 Bengal the limit 1/2 practicing better

161 - left no test  
159 - No test lifts -

Note - Think 8 1/4 or 8 1/2 even 9 6/4 will if run at proper schedule give no lift + ultimately in printing have less condensation + less tendency to curl up + crack - also if Sandras left out perhaps paper also, it will again have less tendency to curl up on the printed face by being over condensed -

Should be under condensed in Oven & when finally condensed in press have changed 6/4 so it will condense to limit clear then & give no strains or tendency to curl

Don't fail

184<sup>EA</sup> Continued from old 184

Printed over old Prints -  
4 prints - 3 cracked Margins  
1 poor print discarded

184EA

RO  
1  
2  
3  
4  
5  
6  
n

fine  
quad

RO  
1  
2  
3  
4  
5  
6  
now

184E

fine  
quad

More parallel slope RD  
+ improvement.

184E not dipped 4 Reprint 3 chd Margins  
1 poor print discarded

RO  
1  
2  
3  
4  
5  
6  
n

fine  
quad

Much better  
than original  
194

185EX Reprint of old records  
6 printed 2 OK 2 chd Margins 1 pp Dis  
1 poor print discarded

RO  
1  
2  
3  
4  
5  
6  
n

fine  
quad pp  
1

none

**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Record Book No. 5**  
**Notebook, 16-00-00.3**

This undated notebook was used by Edison, probably during February 1916, for notes on the composition and application of varnish surfaces used for disc records. Included are notes describing a sequence of experiments numbered from 186E to 271E; the entries for experiments 263E-270E have been crossed out, and some earlier entries are marked "cancelled." Some experiments involve disc records returned to the factory because of cracks. Other entries indicate the results obtained from varying the ingredients and proportions in the varnish applied, as well as varying the heat and the processes for baking, cooling, and dipping. The summary of results usually provides a tally of acceptable and unacceptable record surfaces obtained. Some of the notes are in the form of instructions to Sherwood T. (Sam) Moore, Ludwig F. (Louis) Ott, or other employees. Inserted into the book are several loose items by Edison, including a table generalizing the results of some of the experiments between 190E and 227E. The front cover is labeled "Disc 5." The pages are unnumbered. Approximately 130 pages have been used.

186E

Moore to get 100 returned  
Records just as they come  
out for Cracks only

Then will test for dishing  
& what kind of record  
& also notch the edges  
of the uncracked side

OK notes

Cracking  
It is due to strains  
in the Varnish—  
More than anything else

100 Returned Re		Shellac	Cresol
OPD Condensate	1 flat like bath tub	1 side -	
Shellac Ckd	1 side	Slight peel. very little dish	
Shellac	1 "		Dished 024
Shellac	1 "		flat -
Condensate	1 "		dished 017
Condensate	1 "	very wavy & fairly flat -	
"	1 "	fairly flat.	
Condensate	1 "		slight dish 010
Condensate	both sides		031 dished
Condensate		Put as is	
Silt Phenol	both sides		flat.
Shellac	1 side -		flat.
Shellac	1 side	Set aside -	flat.
Old Phenol	1 side -	peeled 3 yrs old	flat.
Shellac	wyward	in handling	
Condensate	1 side		026 - dished
Shellac	1 side	slowing to peel.	flat.
Condensate	1 side		022 dish
Phenol	1 side		flat
Condensate	1 side		020 -
Shellac	1 side		flat
Condensate	1 side		015
Shellac	1 side -		018
Phenol	1 side -	start to peel edge	020

Not noted



All on Concave side

Condensate	1 side	CK'd clean across Very much worn	flat
Shellac	1 "	2 1/4" cks music	flat
Condensate	1 "	CK'd on smooth set aside -	
Shellac	1 "	Play'd long while -	flat
Shellac	1 "	Reprint	flat
Shellac	1 "	Set aside -	
Condensate	1 side		fairly flat
Shellac	1 "		flat
Condensate	1 "		010
Condensate	Both Sides	Not noted	flat
Shellac	1 side		020
Shellac	1 "		010
Shellac	1 "		fair
Shellac	1 "		flat
Shellac	1 "		flat
Shellac	1 "		flat
Condensate	1 "	small cks in music	flat
Shellac	1 "	" checks	flat
Shellac	1 "	Small checks	flat
Shellac	1 "	Cracked music	flat
Shellac	1 "	in music	flat
Shellac	1 "	in music	flat
Shellac	1 "	clean across music into label	flat
Condensate	1 "	Enormous Number 3 "cks	fairly flat

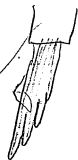
All crkd on Concave side

Condensate		Set aside	
Condensate	1 side	Checks around smooth edge	060
Condensate	1 "	Long Crack 2 lgs to label	flat
Condensate		Set aside -	
Condensate	both	Checks long cracks -	040
Condensate	1 side	margin ck	010
Condensate	Both	Margin	024
Shellac	1 side	3/4" in from edge several	012
Shellac	1 "	small cracks in music	flat
Shellac		Set aside -	
Shellac	1 side	big irregular CK music	027
Condensate	1 "	Circular Cracks -	flat
CRISP	1 "	CK'd in Music	flat
Condensate	1 "	cut edge cracks run into music	fairly flat
Condensate	1 "	small CK in Music	flat
Shellac	1 "	Checks	flat
Shellac	1 "	the CKs in music all directions	flat
Shellac	1 "	Checks in Music	flat
Shellac	1 "	Check in Music	flat
Condensate	1 "	CK'd around label	022
Condensate		Set aside	
Condensate		Cracks across Music	flat
Condensate	1 "	PK from label	flat
Condensate	1 "	in Music	010
Condensate	1 "	Cracked on Convex	050
Condensate	1 "	in Music -	flat

all chd on Concave except

Condensate	Both	1 side margin also <sup>in margin</sup> <del>Worn record</del> <sup>muscle</sup>	flat
Condensate	1 side	all across <sup>Worn record</sup> <del>muscle</del>	flat
Condensate	1 "	all across face	flat
Condensate	1 "	Center out -	flat
Condensate	1 "	big ck musc	022
Condensate	1 "	Musc -	flat
Condensate	1 "	almost - Center	flat
Condensate	Both	Margin 1 side Musc other side	018
Phenol		peeled <sup>to crack</sup> cracks by notching	flat
Condensate	1 side	allowing thru musc	flat
Shellac	1 "	Small checks	flat
Condensate	1 "	Chd thru musc	flat
Condensate	1 "	small checks	flat
Condensate	Both	<sup>2 cracks on concave side</sup> all <del>is not</del> <sup>was</sup>	022
Condensate	1 side	Checks 3/4"	fairly flat
Shellac	1 "	Checks	flat
Shellac	1 "	Checks -	flat
Shellac	1 "	Several parallel chs	flat
Shellac	1 "	Checks <del>not</del>	flat
Shellac	1 "	Edge Checks - ex <del>    </del>	fairly flat
Condensate	1 "	Margin Crap.	028
Condensate		Set aside	
Condensate	1 "	Checks	flat
Condensate	1 "	Musc	022
Condensate	1 "	Cracks Edge ex	fair

Condensate 49  
 Shellac 39  
 Phenol 5  
 Cresol  $\frac{1}{94}$  Records



8 Cracked both side  
 Every crack, except 2 is on the  
Concave side when found dished

Flat	51	Cracked on both sides	8
Concave	26	Small peel	5
fairly flat	8		
a little	2		

010	5	Checks
018	1	Condensate 5
018	3	Shellac 9
020	3	
020	4	
022	2	
024	2	
028	2	
026	1	
030	1	
040	1	
030	1	
060	1	

187.E

Transfer  $6 = \overset{\text{use}}{\sim} 116E$  Van plates  
onto 14(2) blanks & print them  
Select as equal flawed plates  
as possible -

188E

Louis Ott, pour varnish  
20 grams into distillation liter  
in an oven and run on

safe schedule —

16% Resin 6 free phenol —  
6:75 6/4 — + save the  
distillate + use a part of  
it to test for phenol. + also  
for Resin - Para etc

189 E

Tried off to make a wire  
screen with edge so it is perfectly  
level in Ovens + plates lay  
dead horizontal always when  
showed in Oven

Done

Transf wrong blank - blank size of  
Disc

Transf ok - free release

These veneers were free veneers  
& not on a plate - Empty places  
used to transfer

Can under run strip whole veneer  
off - ~~do~~ don't think it got  
much pressure on account  
of Edges of metallic plate looking  
all the pressure.

One side evidently got more  
pressure than the other  
Couldnt strip - on  $\frac{1}{4}$  to  $\frac{3}{4}$   
pieces -

It Condensed & not horny

I notice the side I couldnt under  
run has a part quite horny  
showing one disc about Condensed  
probably bad Contact

Veneer lot 7

acts same as 191

190 Effr

Curles most on heat

on 1220 at 310 pm dent

but hand

10 grams Red Resin

16 " Adohal

lost 100 milg Para

10-8 mg 100 " Dandrac, Bang of Soluble

1.479% 650 "  $\frac{5}{4}$

600 " free phenol

Run to 235

1st free on plate 4 but top flat very slight  
curles - flat no raves -

2 = free & dished slightly No butts

3 - slight touch becomes free. no bubbles flat

4 free No bubbles flat

Broke at 40  fully Condensed

one hat plate bend =  
dents Easy dent returns no signs  
off it

Has good cut.

7440 after 7332 1/450% lost

fr. d. OH - get from 190

to 202 In the Yee

Chest by 6008-ochlock

wednesday

Broke 90

3 pieces main piece nearly  
straight broad right  
no cross 025

Vencee 102 right ~~102~~ '9330

Plate side down tends to curl  
Surface under tension,

on 1240 pm at 310 dents ok

Warped only little

lost 37.9 milg 4.07%

Break 100 - Cuts slightly heavy  
029 - Think this is good

191E

10 grams Res Resin  
16 " Alcohol  
100 milg Para  
100 " Sandrac Resin of Columbia  
625 " 6/4  
600 " Free Phenol  
235°

- 1 free no but, some w/ white no left
- 2 free " "
- 3 " " "
- 4 Not free " "

top in tension

goss 90° no break Return to 4  
Parsha 102°  
Callipers 034-

Cut semi horning think just about right  
at 235 for Printing at 350

— x don't break

Don't curl much on hot plate  
Weight ~~6000~~ 8080

on at 1240 pm - 310 pm dest OK

Warped only little

lost 34.2 Wt% - 4.24%

Probe 60 022 in center

Cuts good - appears very  
good piece, broke several  
pieces - may have strain

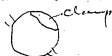
192E

10 grams Resin  
16 " Alcohol  
100 Wt% Para  
100 " Sandrac Benzol solubla  
600 "  $\frac{6}{4}$   
600 " free phenol

235°

- 1 = a touch + its free 1 but no left  
some unmixt
- 2 slight jar to free no bubbles no left  
some unmixt
- 3 not free - no bubbles
- 4 a touch then free no bubbles no left

Probe 35



Dried it again same piece -

Probe at 50 Calliper 031.

Cuts like horn not fully condensed.

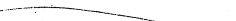
but its OK for pumping  
On hot plate:  $\Rightarrow$  break at X-4  
not condensed



Weight ~~7225~~ 7225

on 1240 ppm at 310 ppm dent/ok  
lost 36. mg 4.9%

no trail of bkg

one hot plate -  x breaks at X  
not condensed - dents OK

193 E


10 Grams Resin  
16 " Alcohol  
100 mg Para  
100 " Saurbrac Benzol Soluble  
5.75 " 6/4  
6.00 " free phenol

- 1 - stick a little had to under run knife no  
no cuts - no lifts - considerable wall (P)
- 2 - free - dished a little 3 small top cuts
- 3 not free under run a little then it broke  
no lifts 3 small top cuts
- 4 can't get free - 1 very small top cut.

All are somewhat wrinkled

Break 25 - breaks straight

Horny Cut not fully Condensed but  
will answer for Print probably  
would be condensed if chimney

 broke at 50 Calliper 037  
broke 5 Grams

Curle on hot plate considerable

Weight .80265<sup>g</sup> wrong  
on 1240 pin - at 310<sup>g</sup> dents OK  
Warping lead

After hot plate weight 8324

Brake 77 - brake dozen pieces  
it was much covered when  
started to bend. Curle little honey  
best hand 029, 025, 025

194 E

10 Grams Resin  
16 " Alcohol  
100 Milg Parva  
100 " Sandrac Solin Benzol  
550 " 6/4  
600 " free phenol

1 = free discol - dirt in var 2 bubs


2 free & curled 2 peculiar  
internal swelling, to den each may be flat but  
chased lips & bubbles, scarcely any warping

3 free slightly discol - 1 bub - no lifts

4 = free on slight touch, considerable warble  
no bubbles

Brake 43 Calliper 030

Curle honey not quite condensed  
if 015" would be nearly condensed  
think it ok for present

Brake straight  
Hot plate bends ok  x dont break

195 Weight 0.70837 <sup>needs be wrong</sup>  
<sup>probably 8907</sup>

on 12:53 pm at 3:10 pm  
denti OK

Warped only little

Weights 8449 - fls

Brake 55 - brake in 4 pieces  
028 - tinge of honey

195E

10 Grams Resin  
16 <sup>mg</sup> Aldehyd  
100 <sup>mg</sup> Para  
100 <sup>mg</sup> Sandrac Benzololol  
525 <sup>mg</sup> 6/4  
600 <sup>mg</sup> fress phenol

1 = free - slightly discol - some warts  
1 bub - no lefts

2 free - no buds, warts - no lefts, flat


3 free - very slight bend, no buds, warts

4 had to under run, no lefts, no buds, warts

Brake 60 brake straight

Calliper 034

Condensed -

Hot plate -  brake

Out 3 bent & very short, only honey  
when hot

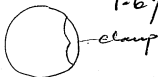
196 Weight 1.0097 — 1.097  
wt of flat 1.0795

On 1258 at 3.10 pm dents OK

Nearly flat  $\frac{5 \mu m}{}$

Lost 21.5 mg  
1.6%

Brake 50



No strains I think  
Cells only shadows of brown  
on the chest, then nearly same

196 E

10 grams Reg Resin  
16 " Alcohol

100 ml of Para

100 " Soudrac Benzol soluble

500 " 6/4

600 " 4/2 phenal

- 1 free - very slight dust - 3 top micro bubbles
- 2 - free - 1 micro top bubble - slightly dusted
- 3 free 2 bubbles - top - wavy - dusted & little
- 4 - Can't get lower Considerable work  
1 subcell top bubble

Broke 63 Calliper 031

Condensed, brake nearly straight  
Horny cut when hot,

197- weight  $\cdot 7030$  7300  
after-7172

on 1 pm at 3.10 pm dents ok

Warped bad 

lost 12.8 milg 1.6%

Curled bad on hot plate, straightened it  
on hot plate some broke 50  
Calliper 013 thin 031 thick.

Outside not horny inside considerable  
horny

197 E

10 grams Reg Resin  
16 " Alcohol

100 milg Para

100 " Scandrac Royal Sol

475 " 6/4

600 " Free phenol

1= had under run - shows  $\frac{1}{2}$ " lift. 1 bad  
bad wrinkles

2= Had to under run ok but no cuts would be

3. Cant get off - bad wrinkles 1 micro bad

4 Cant get off 2 cuts very bad wrinkles

Only 1 free roll that almost has a  $\frac{1}{8}$ " raise -  
tested tracks at 20 - Calliper 028



break nearly straight

Hard Condensed - Horny when  
hot very flexible

Can't get off

198E

10 grams Reg Resin  
16 " Alcohol

100 Mlg Para

100 " Sandrac Benzyl Solu

450 " 6/4

600 " 1/2 Phenol 2 1/2

- 1 = 3/4 of it was a left 1 bud - 3 more buds  
bad weather
- 2 slick - can't get off - 1 bud - Very bad weather
- 3 slick 1 bud 3 more - Very bad weather
- 4 slick - 1 bud Slicks Cracks badly when  
underway, it had a crack in it  
Puff -

Can't get whole one to last  
Fully Condensed  
Nicked at cracks - Not straight -

All from 190 to  
206 - 78° Room  
temp - when tested  
for breaking

199E

Dose

10 grams Reg Resin  
16 " Alcohol  
100 Mlg Para  
100 " Sandrac Benzal Sol  
425 " 6/4  
600 " Prop phenal

- 1 = 3 tubs  $\frac{1}{2}$  - stick Cant get off Winks Vg Cal
- 2 Slit 2  $\frac{1}{16}$  tubs 4 more Bad work
- 3 Slit 2 tubs 1 020 1 010 4 more  
Vg bad work
- 4 awful work - 2 tubs 2 Cc Cal

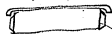
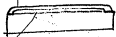
None loose to test for Eky

Room 78°

7  
min

Transfer Fred all made blank  
same size as plate which was  
wrong

should be



This  
The way  
OK

Transfer - 1 ok other side slick  
to Horny + nowhere near hardened  
The gap air filled up as no  
contact, — NG not condensed

from this point I believe Horny  
cut stuff caused by transferred  
ok if you had ever want  
it,

200 E

Don

10 grams Resin  
16 " Alcohol

100 mg Para

100 " Saurac Bengal Sol

400 " 6/4

600 " free phenol

- 1 = slick 2 but bad work
- 2 = 1 but 1 more very bad work slick
- 3 = stick 5 small but very bad work
- 4 = " no bubble. Horribly condensed

No 4kg test slick

Room 78

1  
2  
3



201 E

Comp  
Room 78

Done to have

10 grams Reg Resin  
16 " Alcohol

100 mlg Para  
base no Sandrac

675 mlg 6/4

600 " free phenol

1 = No wrinkles worms only 2 microbubs  
no lifts - free = very slightly dried

2 = slick 2 microbubs a little wrinkled

3 Considerably wrinkled 2 microbubs eructe

4 " " no bubs slick

Broke 45-



Callipers 035


Condensed

Very Horny when  
hot & exceedingly  
flexible -

202-weight #7068 7688  
on 1 pm at 310 dents OK

Warped only little. —————

Weights - 7553 -

12.7 milg 1.52%  
Breaks 77 - 

Think it free of strains  
nicks give no cracks  
022 Center

202 E Room, <sup>Keene</sup> 78 Down

10-grams Reg Resin  
16 " Alcohol

No para  
no Sandrac

675 milg 6/4

600 " free phenol

- 1 = has left very bad wrinkles, sticks to plate  
<sub>1 bubble</sub>
- 2 sticks of fairly large bubbles, somewhat  
<sub>no lifts</sub>
- 3 lifts sticks plate very bad wrinkles  
<sub>no bubbles</sub>
- 4 Big left. 1 bubble sticks plate

No break test stick

Glick Resin  
Para absent

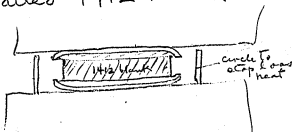
203 E

Done

Fred Ott - make little fixtures  
if necessary. So I can cut out  
of blanks small discs &  
actually make transfers from  
the little discs to the blank

Must have 80 to 100 lbs steam  
heat + prevent radiation from  
Edges -

The blanks to cut the  
little circles from is  
called 1412 Blank



Weight ~~859g~~ 8595  
on hot plate 1 pm -

Warped only little

5 pm - dents of wax

off for weighing 6 pm -

on 5 hours

lost 26.2 mg

3.05%

Drake 67 - Calliper 023

tinge of honey, hard,

apparently no alminis

Nothing gives no cracks

think its good

204E

Room 75

16000  
20000

5000

Duplicate of 190

Except spent 800 mg of water in  
the 16 grams of Al<sub>2</sub>O<sub>3</sub> had

- 1 = 1 small but fine after cleaning edge 1 but -  
a little unrounded no left.
- 2 = fine - 2 micros very little unrounded  
no left
- 3 = Touch-fine - 1 micro but very little unrounded
- 4 = sticks 2 micros but some unrounded

Drake 45

Calliper 029

fully Condensed

Exceedingly flexible when hot  
cuts very honey hat.

↳ did not cut

205E Room 78 Dows

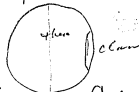
Dup of 190E

Except put 1.200 milg of wax in  
in the 16 grams of alcohol

- 1 = free no buds <sup>no buds</sup> big left
- 2 Had under <sup>no buds</sup> - no left Cond. tube work
- 3 Big left, sticks no buds work
- 4 - free 2 micro buds - ~~no left~~ left

Photo 30 dead straight across

Break 2 places



Honey not quite  
Condensed - but ok for print Calliper 0.31  
Hot ends  $\rightarrow$  \* break when very short  
has honey all hot

Proper blanks - One side  
Transp'd OK -

Cuts horny - Cant scratch  
with nail of finger  
Chips out  $\frac{1}{4}$  to  $\frac{3}{4}$  - Press dont  
heat it hot enough - Cuts  
horny on face - Want  
Scum black dip varnish

Schedule 15 min hot - 100 lbs steam  
15 min Cool - no radiative ring used

This shows Horny Condensed  
Can be transferred -

206 E

Room 78°

Done

Dup of 190 Except  
put 2 grams of water  
in the 16 grams of Alcohol

- 1 = Stuck 8 mins some wonder
- 2 Stuck 3 " "
- 3 Stuck 4 " "
- 4 Stuck no bits "

Cant get off for breakfast  
Chip shows less Condensed than 205 -  
but I think enough Colloided  
the chip 028

All stuck

190 to 206 — Drying on board  
2 hour all even no bubbles  
What can see in poor light

RO

1

2

3

4

5

6

None

fine 

good

207E

Dip 12 blanks in Reg Dip  
Varnish with 5% Lempel's  
ground finer, say twice then

Transfer 12 3 left cracked

5 Cracked Var - margin -

 squint out

Print 6 - 5 Cracked on Margin

 given away



208

Calliper Record	High	Low
"	240	237
"	248	242
"	243	238
"	242	235
"	249	232
"	238	232
243.3	<u>1460</u>	<u>1416</u>
		236

	High	Low	Difference
3% Lampblack	240.7	228.3	12.4
10% "	247.5	236.5	11.0
7 1/2 % "	243.3	236	7.3 - Best

7 1/2 is by far the smoothest record

Perhaps good results of 7 1/2 is due to more even callipered blank & it looks as if uneven blanks would tend to make Run Outs -

208 E

Dup 207 but use

7 1/2 % Lampblack  
Dried 2 hours

Trained 12 - 2 evoked cases  
3 lifts Center Cracked

Prints 6 - 3 ok - 3 poor prints. Count

RO

1

2

3

4

5

6

none

fine

good

Weld to chip - Very good

poor print in the Exposed

209E

Dup 207 but  
Use 10% Lampblack  
fine ground

Transf 12 100k 2 left ckd

Prints 6 - 40k 2 feedline cracks

RO

Fine <sup>vrr</sup>|||||

1

quad

2

3

4

5

6

Nonell

Caliper  
High Low

1	246	238
2	254	240
3	248	238
4	248	228
5	242	235
6	247	240
2475	1485	1419
		236.5

210 E

Dup 204 - but use  
3/4 lamp black ground  
fine -

Transfd 12 7 cr 1 Coated Glass  
3 lifts Ckd 1 mechanical

Prints 6 = 3 feed line cks 3 poor print  
of which 2 coarse 1 a Discard

RO

2

3

4

5

6

None

Fine  $\begin{matrix} \vee & \vee & \vee \\ ||| & ||| & ||| \\ ||| & ||| & ||| \\ ||| & ||| & ||| \end{matrix}$

good

Collaps

High Low

239 225

240 234

231 227

250 225

240 226

244 233

1444 1370

2407

228.3

On hot plate - started curl had  
pencil on 10 sec now flat  
Dents good - if lax

breaks after hot plate 3 hours

Off hot plate - Cold & breaks it  
in several pieces don't break  
straight. it was however  
considerably crushed

Off  
211 E

18 gms Reg Resin

10 gms Alcohol

3 grams of water in alcohol

100 Mils Para

600 " Phenol

780 Mils 6/4

3-4-2 - none Microscopes 1 1/2 to 2 inches

Milled - moderately

1 = touch loose

2 = " "

3 = " "

4 = sticks some crumbled in getting off

2 = broke 43. bits hard out brittle soft inside

023

031

024

022

110-8  
023

On hot plate. started curl but  
held pencil 5 sec stays flat.  
Dents OK if flexible

On hot plate 3 hours don't  
bend. Cracks on the allamp

After hot plate is cool  
brakes pretty straight

212 E

ott

10 gram Resin  
16 " Alcohol  
4 " Water  
100 Mily Para  
600 " Phenol  
780 " 6/4

5-6-3-4- light top buckle

Matted quite tight

1 Touch free

2 free

3 free

4 Shrink brakes in getting off -

Brake 30 -



028 Center  
025  
023  
not low

Cuts little horny - not brittle horny not  
quite condensed

2/76  
02.5.3

On hot plate stays flat -

Dents ok flexible

Don't bend much after 3 hours on  
hot plate -

Not good after cooling  
from hot plate - dyed  
of brittle -

213E

OK

10 grams Resin req  
16 " Alcohol  
100 Mily Power  
600 " phenol.  
500 " Water  
950 " 6/4


2-3-1 - none fine top bubble  
malled light

1 - 1 inch piece

2 " "

3 " "

4 Already piece

Break 27  alloy

027  
027<sup>5</sup>  
026  
028

outside hard inside, some brittle honey

4/1085

0271

On hot plate, Curls a little Bent ok  
flexible - Now after 3 hours -  
Very stiff

breaks -

214E

att.

10 grams Resin  
16 1" Alcohol  
100 mg Para  
1200 " Phenol  
1250 " G/ff

1-1-1 none bubbles

Connected channels - light



1 = Touch free  
2 " "  
3 " "

Grade 29 -



027  
031  
027  
027

Cuts on the horny  
hand outside

215E

ott

10 Beam Reg      No Resin  
10 Grams Phosphor -  
16 Alcohols  
100 mg. Potash  
2 Grams SA  
5.00 Grams of Resin

Cancel  
but work Condenser  
get hot,



216 E

alt

16 alcohol

10 grams Phenol

5 " Water-

5 " 6/4

100 Mlg Para -

When alcohol added in

Condense & wash & evaporate

~~Cancel~~  
Cancel

Hereafter all 1412  
Dried 2 hours after  
dipping Brushy

Even with a perfect 200  
mesh 1412 blank Run  
out. Can come from  
Dipping & this part  
of the process must  
be experimented on  
to get right Technique  
damp black 5% ground and no  
spoke or even Calligraphy  
007 blank its OK

1 M means #1 Moore's Spots

# 1.M -



Experiment on Blanks -

12 Trand 9 ok 1 Cooked C  
2 Left C.K.D.

Prints 6 - 1 chd Marquis Couch  
3 poor prints on Marquis  
2 chd on Marquis one of which  
is chd in numeric also

RO

1

2

3

4

5

6

none

7 fine <sup>vv</sup> / <sup>vv</sup> ||||

quad |||

Note -

Took 2 plates thick at Edge  
Stripped Veneer - it seems to be  
Condensed fully but while it  
bends fine, the slightest nick  
with knife it cracks - seems

under strain - when you  
want to cut a shaving it  
chips out + cracks elsewhere  
most of the little discs  
up to 325 are 3 times  
thicker the do not nick out  
are not brittle crack where  
the shoulder + give straight  
crack + not circular +  
irregular cracks

Of course reg Veneers are  
3 times thinner -  
The thinner the more brittle.

217E

alt

10 grams Resin -  
16.1 " Absolute Alcohol  
Same as used by Drummondie for dope -  
600 milig Phenol  
780 " 6/4  
1000 " Para

Milled Comandarine 600 - Cracked in 1901

1 - 2 bub lap	} micros
2 2 1 "	
3 1 "	
4 1 "	

1 + touch loose
2 loose
3 loose
4 loose

Forole 8 P's many pieces  
mostly 5/16" +  
Very hard Condensed  
all through 034 hrs  
028  
035  
028

On hot plate - stay flat - Dents OK  
stiff to flex - after 3 hours on  
hot

breaks

Don't break very straight after  
coming off hot plate + cold

On hot plate stays flat  
 Dents Very stiff  
 Cant bend at all - breaks -  
 Very thick Calliper -  
 Cant even dent it -  
 This is Carrying 6/4 to  
 non softening point -

Notice Excess 6/4 hard Van -  
 Cracks = Evidently under great strain

218 E

6/4

10 grams Resin Plug  
 16. " alcohol  
 100 Wily Para  
 600 " phenol  
 1560 " 6/4

- 1 left - Cracked - force 1 bubble Micro
- 2 free - no left 2 Micro top
- 3 loose + Cracked along narrow no left  
 2 Micro buds
- 4 Scraped edge, Cracked in dozen pieces

1 Very hard Condensed NG

Broke 65 -

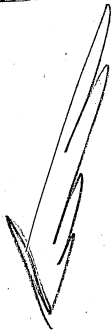


0 33  
 0 37  
 0 27 -  
 0 25  
 4 12 2  
 80.

Dont break straight after  
 of hot plate + C. cold,  
 dished however

Coming

It looks as if Box  
to cool down gradually  
 was an improvement  
in stopping cracks



219E

This was an experiment to  
 determine if taking transfers out  
 of pieces they were cracked by  
 drafts of air -

	Prints -	
Kept in box	79% ok	Records
" " "	88 1/4% ok	Transfers
		69% net Prints

~~Kept in box~~  
 Reg way Prints 65.9 Prints  
 " " Transfers 86.6 Transfers

'Another test 57% net Records

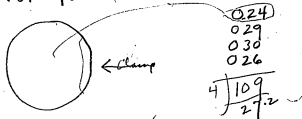
Kept in box	71%	Records
" "	88.7	Transfers
		62.4% net Records
Reg way	71.6%	Records
	79.7	Transfers

Box 69.5% }  
 Reg 57.0% } net Records

270-

Moss to Deep 219 E  
in large quantity

Dent OK - flexible - wants to cure. Is  
fairly flat Dent -  
Broke 43 - good & very flexible



This seems good - on this  
Schedule in fact only one  
that was not loose.

probably 100 para even better

brake - on hot plate  
3 hours

Cold - 4 brake in several places  
don't break very abundant  
its disched considerably

221

alt

10 grams Reg resin  
16 " silicof.  
800 Mily Water  
150 " Para  
650 " 6/4  
600 " free Phenol

- little M. 1116)
- 1 - 6 Micro
  - 2 - 20 Very Micro
  - 3 - 1 600 15 Very Microscopic
  - 4 - 5100 10 " "

Cannot get them off

Put on hot plate - Comes off gas  
runs under a they left - only  
little only 1 belied a little -  
1 - 6 (but) oo. } Hat plate 250°  
2 - only Micro } They will stand the  
3 - 6 " } scheduled for  
4 - several " } Reg work -  
ok for tubes -  
Very hard Condensed both 2 dges  
no honey

On hot plate - stays flat  
Tests OK - fairly flexible  
Not very } breaks after 3  
hours on hot plate  
After hot plate + cold  
breaks straight -  
Pretty good

222 E

Cell

10 grains Reg Resin  
16 " d Coaf  
300 Mlg Locater  
200 " para  
650 " 6/4  
600 " phenol

only little melted -

- 1 = 2 4 15 micro 2 are 010
- 2 2 010 10 micro
- 3 1 broken big 3 of 010 3mm fine mesh
- 4 4 010 several micro -

Free - Curled a little  
" " slight  
" " little  
" flat

Porak 65° braky 5 pieces mostly straight  
Very hard Condensed

028  
034  
029  
027  
4/11/2 29'



On hot plate - stays flat  
Dents OK fairly flexible

— <sup>hot</sup> don't break  
8 hours on hot plate

after hot plate & Cold  
breaks straight, several  
breaks -

Look quad Var

295° is temp of  
Hot plate,

When these numbers  
were done  
211 to 228

223 E

alt

100gms reg Raisin  
16 " Alcohol  
800 H<sub>2</sub>O Water  
250 " Poria  
650 " G/H  
600 " ~~Phenol~~ Phenol

- 
- 1 3 but 1 040 - 2 of 030 -  
2 10 of 005  
3 1 of 010 10 of 010  
4 2 of 020 5 "
- 

- 1 free Curled  
2 " Curled little  
3 " almost flat  
4 " Touch free

Break 80 in several pieces mostly thin

Condensed Phenol

032  
0 28  
0 27  
0 25

4/110  
275

Must be  
poured

On hat plate - sleep flat  
 Dents OK fairly flexible  
 — dont break hat plate  
 after 3 hours

9 ~~Breaks~~<sup>+</sup> in several pieces after  
 taking off hat plate + when cold  
 each break is straight

224E

all

100 gms Reg Resin  
 16 " Abacral  
 800 Mig Coater  
 300 " Peen  
 650 " 6/4  
 600 " phenol

Some Mottle, some G.M.

1 - 2 of 000-  
 2 minus  
 3 1 of 020-  
 4 4 of 020-

1 - Crk when 9 scraped E edge  
 2 - free curled a little  
 3 - touch free - small edge left  
 4 - free - curled a little

Probe 25,



Hardened  
 def cut not so sharp

025  
 034  
 022  
 031  
 ————  
 4112  
 28

Out hat plate tends to dish  
up a little; only a little,  
Bents OK stiff - bends  
hat after 3 hours

Very good - Van

Can't break one from hat  
plate, breaks if firmly struck

225E

alt

10 grams Reg Resin  
16 " alcohol  
200 mlq Para  
650 " 6/4  
600 " phenol

- 1 = 2 of 020 round masses
- 2 1 of 1/2 pendants from mass
- 3 - 2 of 005 3 masses
4. 2 of 005 1 mass

- 1 = free no lifts
- 2 " " curved a little
- 3 a touch free
- 4 sticks

Broke 54



Condensed hard - not sharp

glyx  
1100  
11

Note -

Veneer stripped from a Reg  
plate & left on hat plate  
2 days. no longer Ruffles  
its brittle at hat plate temperature

Perhaps it keeps hardening  
after shrinking and ~~continued~~  
continuously until Resins  
Crack

This leads to theory that should  
use minimum  $1/4$  & harden up  
as far as we can transfer  
& prevent a bake

276E

alt

10gms Reg Resin  
16 " alcohol  
250 milly Par a  
650 "  $1/4$   
600 " phenol

Walled chamber

- 1 - 12 micro
- 2 - 10 "
- 3 - 2 of 005"
- 4 - 10 micro 1 flat 030 - not broke

- 1 = free curled a little
- 2 " " at edge  $1/4$ "
- 3 Touchy free - it drew away from edge
- 4 free nearly flat slumped

Broke 4Z



028  
026  
025

Shows Condensed  
Cite sharp hard

024  
163

on hat plate - dried Cured hat plate 295 to 300 made in  
control with plate - only a little flexible dents enough  
after 3 hours stiff off hat plate broke fairly thin breaks nearly

On hot plate stays flat  
Dent, but hard + stiff  
don't break on  
hot plate 3 hours

Pretty good Varnish

227E

clt

10 gms Reg resin  
16 " ethal  
15a Mlg Para  
650 " 6/4  
500 " phenol

1 = Micro  
2 "  
3 "  
4 "

1 = free Curled one edge  $\frac{1}{4}$   
2 " " "  $\frac{1}{2}$   
3 " " " "  
4 louch - 600 lifts -

Broke 77 5 pieces fairly straight  
Condensed hard sharp cut -

025  
024  
022  
020

4/91  
23

228E

OK

Put the 2 Carb Magnesia -

216 was left out of 228 batch

Put it in next batch -

1 = Lefts bad face face balloon  
2 with Excess Mg sticks

NG  
C

228 1/2 E

10 grams CP Resin - Soda process  
16 " Alcohol  
100 milg Para  
250 " 6/4

All raised - I has 2 cracks in another big crack  
Ravines are round, 1/2 to 5/8 dia very little  
raised above level Bubbles around the  
Edges - some bubbles other place -

Not condensed at all. brittle Resin -  
Can't get a sign of horny cut,  
Scratches with finger nail

Sticks tight to plate, except at a lift  
Hot plate 2 hours on slight

Condensed fraibles - Ckd, bubbles

229E

new lot -

10 grams CP Resin Soda process  
16 " Alcohol  
100 milg Para  
300 " 6/4

2 ha 5/8 raise only shade above general  
level.

Its only Resin shows no condensation  
only few bubbles - Cracks -  
sticks tight to plate  
Very wrinkled

The raise is Condensed some by the  
higher heat Cut horny brittle,  
Might work for transfer doubtful

230 E.

10 grams CP Resin Soda process  
16 " Alcohol  
100 Mily Para  
350 " 6/4

3 have raises - 1 ok - shows signs of  
Condensing Very little horny - chips out  
Very lumpy  
Couple bubbles

---

Hot plate 1 hours. Touch it

" Comes free flat,

Broke 62 nearly straight & pieces



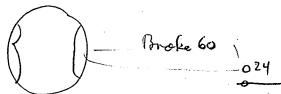
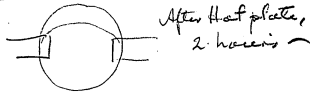
This will work  
on Transfers -



231 E

10 grams CP Resin Soda process  
16 " at central  
100 Mily para  
400 " 6/4

3 have blisters - Shows fair condensation  
honey cut but fragile - Very wrinkled  
2 or 3 cuts



Soft Cut honey showing condensation  
OK will transfer  
Left are bad

232E

10 grams CP Resin, Soda process  
16 " Alcohol  
100 milg Para  
425 " 6/4

2 Raised 6 tabs - v  
5 " 6 Micro quite wrinkled  
6 Micro  
5 Micro

Horny fragile cut.

233E

10 grams CP Resin, Soda process  
161 " alcohol  
100 mlg Para  
450 " 6/4

14 by on 4 plates 2 have left  
somewhat "matted".

The left is condensed + with semi honey  
+ some fossils - The other parts stick to  
plates about approx condensed cuts like  
Resin -

Can it be possible Oxygen is necessary  
" or air to carry off the alcohol or  
water before it will condense

After Hat plate

234 E

10 grams CP Resin Soda process  
16 " Alcohol  
100 milg Para  
475 " 1/4

All 4 face - 1 had a raise 7 big 6 miss  
Condensed - Cute hard horny good, not  
frangible - This is good one

Very small wrinkled -

Broke at 77 caliper of broken one 028  
other 034  
029  
027

After Hot Plate -

235E

10 grams CP Resin - Soda process  
16 " Alcohol  
100 milg Peira  
500 " 6/4

4 free 2 had previous lifts 1/3 of whole  
only 2 big buds on all - few micro  
scarcely any matted.  
Condensed hard horny good cut, less in thin  
more horny with thick cut BK. The big lifts  
bulge up) about level with those that  
had no previous lifts -

good Van -

Broke 64 - broken Callipers - 027  
several pieces stuck 024  
036  
030

~~Broke 7~~

note

236 E

10 grams CP Resin - Soda process  
16 " Alcohol  
100 mlg Para  
5.25 " 6/4

All pieces 1 had sectional lifts -  
12 Very large bubbles 7 are to do.  
Very little mottled -

Praks - 39



"tried" x again 85? -

Cut hand seems honey  
+ oil

033 Grubs

032

027

037

237 E

10 grams CP Resin - Soda process  
16 " Alcohol  
100 mg. Para  
550 " 6/4

All pins 4 iso tubes on all -  
1 has previous sectional lift -  
very little melted


Brook 55 - Callipers 034

Cut hard not sharp - 026  
024  
033

238E

10 grams CPProm - Soda Process  
16 " Alcohol  
100 mg Para  
575 " 6/4

All free alk Curled 1/8"  
6 to bubble several more  
rim little swollen

Brook 43 -  025  
hand sharp 034  
cut 026  
26



239 E

10 Grams CP Resin - Soda process  
16 " Alcohol  
100 milligrams Para  
600 "  $\frac{6}{4}$

All (see, lifted long ago plates discolored  
Curled 18  $\frac{1}{16}$  inches - Very bad -  
like milk) -

Brake 54 straight - 1 piece  
Cuts hand sharp -

028  
027  
032  
034

240F

10 grams CP Resin - Soda Process  
16 " alcohol  
100 Wily Para  
500 " 6/4  
500 " glycerine thick

4 all free 1 one has edge w/nt. 3 but 020  
they are dented up like lenses. They have shrunk  
away. - <sup>from edge</sup> The glycerine keeps varnish  
from going over edge of plate.  
Appendix than

not

Broke 68.

Tried again 95

Hand soft cut good

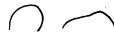


028  
039  
030  
029

4 | 126  
31, 1/2

241E

10 grams CP Resin - soda process  
16 " alcohol  
100 " Para  
500 " 6/4  
1 gram glycerine -

All 4 free 3 curled bad 

Shrunk in size more than 240

Small walls. 6-020 tubs no wires

Breaks - 68 3 pieces

032

033

033

039

137

Hard soft Cut tough, brittle, but all  
perfectly condensed - good -

4/137  
342

242 E

10gms CP Resin - Soda Process

16 " Alcohol

100 mgly Para

500 "  $\frac{1}{4}$

300 " Ferric Chloride Anhydrous

all free & flat - Spangy - too much FeCl<sub>3</sub>

Porok 15 - Cite hard NG

243 E.

10 grams CP Resin - Soda process  
16 " Alcohol  
100 Mily Pona  
500 " 6/4  
300 " Ferricyan Potash - Red

All pieces - 3 curved 12  $\frac{1}{8}$  tubes  
internal checker on one  
only little notch

Break off 2 Straits 4 pieces  
Cut hard but soft -

031  
037  
031 -  
025

244 E

10 Grams CP Resin Soda process  
16 " Alcohol  
100 mg Para  
500 " 6/4  
300 " Chromic Acid

2 free 2 elich - lifts on 3 -  
darker red some matter 4 - 015 - 6 -

Brooke 52) 3 pieces brought

Cuts little horny fossils, but not much -

035  
033

no abundance like glycer

245E

10 grms CP Resin - Soda process  
16 " Alkal  
100 mlq Para  
500 " 6/4  
300 " potassium dichromate

3 free 1 slick rather flat  
8 oz bubi -

Small method -

Brake 81 many irregular pieces

(soft hand) tough chip good -

033  
027  
028

2466

10 grams CP Resin - Soda process  
16 " Alcohol  
100 milly Para  
500 " 6/4  
500 " Epichlorohydrin

Out

" Get some Epichlorohydrin



247 E

10 grms CP Resin - Soda Process  
16 " Alcohol  
100 - Mily Para  
500 " 6/4  
2 grams Glycerine

All 4 free 2 are perfectly flat  
didn't dish out the least,  
1 is Very good Curved into a thin one  
1 is dished up usual amount  
2 stick to rim like the usual Disc  
6 010 bubbles 1 has none

Pinoli - 90 -



looks good



Cuts horny tough  
3/19  
26.3

027  
025  
027

248E

10 gms CP Resin - Soda Process  
16 " Alcohol  
100 milg Para  
500 " 6ft  
250 " glycerine -

4 free 2 had previous left -  
shrink a little 5,015 bubbles -  
little Mottled - (looks good)

Breaks - 83, 5 pieces - irregular

Hand-soft tough chip cut fully condensed  
good - think 400 to 500 glycerine best

025

024

027

030

4) 100  
260

249E

10 gms ~~CR Resin - Saccharose~~  
12 " ~~Alcohol~~  
4 " ~~Water~~  
100 mg ~~Para~~  
500 " ~~6/4~~  
500 " ~~Gelatin~~

out

250 E

10 grams CP Resin - Sassafras  
16 " Alcohol  
1000 milg Paraffin  
500 " 6/4  
300 " Castor Oil -

All free - Considerably melted -  
5 020 bubbles -

Milky

Smoke 45 - Straight

Hand cut, little sharp chip not caught

0 28  
0 25  
0 31  
0 24

251E

10 Grams CP Resin Soda process

16 " Alcohol

100 mlg Para

Nothing else

All Cooked + Cracked



cooked

clean but Cracked  
hundreds Cracks

frable powder on letting

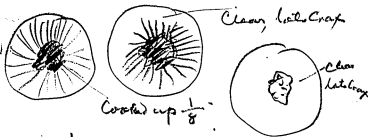
252 E

10 grams Regular Resin-

16 " Alcohol  
100 mg Powder

Nothing Else

All Cooked + radial lines  
towards Center



fragile powder  
on Ceiling

253. E

Don't to Bee

10 grams Regular Resin

16 " Alcohol

100 Nilg. Pava

600 " Phenol.

Nothing Else <sup>fragile</sup>



one mass of wrinkles big -  
with plate cooked up  $\frac{1}{8}$  in  
center & cracked

Get a measuring machine to  
measure out the right amount  
of Varnish for each disc -

254E Soak some of the  
Condensed Pencils in alcohol for  
3 or 4 days = Those that are  
free on the plate

Weigh them before Soaking  
On Soak Monday 3 pm 1



Note = mainly dead + bare not soft on hot plates don't bend very little then lead - then always to much of our Van

- All fully Condensed
- Had this been 6-8" slower at 150° then put in oven + rechecked along all wood hoops - left plates + been OK
- 5 = not free or raised
  - 6 raised shadow not lifted  $1\frac{1}{4} \times 3/4$  at Edges } not free
  - 7 not raised not free OK
  - 8 Raised up  $3/4$ " in at 3 places near Edges
  - 9 not raised OK not free
  - 10 not " OK not free

The 2 top ones got most air + Evidently something evaporated + surface got condensed too hard + cracked + lifted - don't understand # 2 which is a worse - all the others pretty good

- No 2 Cage
- # 1 raised at Edge  $\sim$  5" long  $3/8$ " in
  - 2 OK not free
  - 3 very slight Edge raise but  $1/2$  the Van free
  - 4 Raised Edges  $2\frac{1}{2}$  dia  $1\frac{1}{2}$  dia - Van free
  - 5 OK not free
  - 6 all broken Churny part 2 plates together
  - 7 all cracked
  - 8 - lift + crack from Edge + center
  - 9 Raised in spots + cracked
  - 10 all cracked

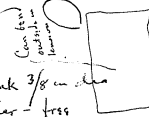
2 plates too tight

255 E - This is also 174 E + 175 E

Put one ~~less~~ two bird cages full of plates in gas oven The plates having already been baked in our Reg oven Run in 6 hours to 325° F when 250 take to out 275° + more - at 300 take out 5 more + leave the others in to go to 325° F also

in at Top Cage

# 1 - dia shrunk  $3/8$ " in Cracked in center - free



All are very flexible to a great deal + not brittle like they were first

- No 2 - free Cracked in all directions + each piece bowed up
- # 3 OK not ch'd or raised
- # 4 raised at Edge 3" long 1" in Square plates little warps

2566

10 grams CP Resin Soda process

16 " Alcohol

100 milly Pan

500 " 6/4

200 " Dichlorohydrin alpha


19 015 bubbles on the 4l

None are free - some molten

257E

10 gram CP Resin - Gokaperson  
16 " Alcohol  
100 Mdy Para  
500 " 6/4  
400 " Dichlorohydrin alpha

3 has notches - 1 has 4 oz

 This way center, slant  
1 lens + free 2 stick

258 E

10 gram CP Resin - Soda process  
16 " Alcohol  
100 ml para  
500 " 6/4  
800 " Dichloroethylene<sup>alpha</sup>

On all 5 010 bits  
2 lifted 1 newly force  
2 stick - Dishes not promising

259E

10 grams CP Resin - base prep  
16 " Alcohol  
100 " Poly Penn  
500 " 6/4<sup>80%</sup>  
200 " Mbuochlorohydrin

2 or 3 large buds on cell

All stuck light.

260 E

10 grams CP Resin - Acetylacross  
16 " ethyl alcohol  
100 ml of Peon n.  
500 " 6/4  
400 " Monochloropyridium 80%

2 hrs  
difts -

With considerable louch  
all fine - only few buds  
good in that respect  
into heavy brittle

~~good in that respect~~

Done to Hand

361 E

10 grams CP Resin - back process  
16 " ethylal  
100 Mily Para  
500 " 6/4  
800 " Monochlorobiphenyl 80%

All free - 2 had left - 6 or 8  
bubbles each - 10 bubbles  
Considerable - Cut little  
bottle

~~At~~ Monochlorobiphenyl

not proceeding

262 E

10 grams CP Resin - Dardac process  
16 " Alcohol  
100 Wdg Para  
500 " 6/4  
200 " Epichlorohydrin



263E

~~10 grains CP Resin - base procen  
16 " alcohol  
100 mg Thra  
500 " Et  
400 " Epichlorohydrin~~

264 E

~~10 grams CP Resin Soda paper  
16 " Alcohol  
100 Miley Para  
500 " 5/4  
800 " Eukhlorohydrium~~

265 E

10 gram CP Resin Soda process  
16 " ~~ethyl~~  
100 mlq Para  
500 " 67  
200 " Dry Calcium Chloride

266E

~~10 gms CP Resin Sata process~~

~~16 " of lath~~

~~100 w. of Para~~

~~500 " 6ft~~

~~400 " Dry Chloride Calcium~~

267 E

~~10 gms CP Resin - Soda prisms~~

~~16 " identical~~

~~100 mg Pearls~~

~~500 " 6/4~~

~~800 " Dry Chloride Calcium~~

268 F

~~100 gms CP Resin - Saka Pnan  
16 " Alcohol  
100 Mily Pawa  
500 " 6/4  
200 " Chloride Zinc Solid~~

269 E

~~100 mg CPRain - Sodalap~~

~~16 " Aldohal~~

~~1000 Mily Pora~~

~~500 " 6/4~~

~~400 " Stry Chloride Zinc~~

270 E

~~10 gm CP Resin - OP -~~

~~16 " alcohol~~

~~100 mg Para~~

~~500 " 6/4~~

~~800 " 6/4~~

~~Dist Solid Chloro to Zinc~~



Seems to be condensed ok

241 E

Put baked plates one in  
dish with alcohol in short  
while cracked put in at  
330 pm at 820 took it out  
as it had nearly all become  
free of plate +


Put another in same  
alcohol at 825 pm -

RO

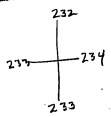
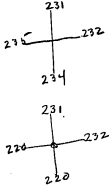
fine 

good

none printed at edge

- 1
- 2
- 3
- 4
- 5
- 6 

Calliper



full check  
100 or more  
in Van in  
mine



# Moore XX

1412 = Even Calliper not  
over .010 out parallel  
Sprayed blank using 5%  
Lampblack good ground  
Operated at S Bat Co -

Transfer 12 - 8 OK 1 Thin Marqu  
3 Marqu Cracks -

6 Prints 2 poor print 2 poor print Cond  
2 OK

Moore - Export Dup of XX

1412 Even Calliper within 014  
Transfered 12 6 OK 1 Cooked Candy  
5 Left Crumbled -

Prints 6 - 3 OK 2 Ckd Marqui -  
1 poor print

RO

1

2

3

4

5

6

now

fine ||| ||| ||| |||

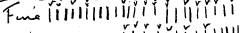
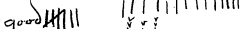


good |||

||||

Moore 3 - Wilds good (where filled)  
 Sprayed 1412 Blanks -  
 not even Calliper -  
 transfers 24 - 22 OK 3 Marqu Check  
 squeeze out cki - Sprayed 5/6 Lampblack  
 Ballying

Printed - 8 OK 9 Ok Marqu Discards  
 7 poor print Dis - 2 Comal -

All new tracked blank Mould

RO Fine   
 1 good   
 2   
 3 

4 - 

5 

6 

Now 

16 Very fine

8 V Very fine

17 plain fine

7 good

22 no RO

14 just hear

5 plain RO

7 Low RO - /ro 1 is 3 times worse

# 4 due to uneven Blanks

[ITEM(S) FOUND IN BOOK]

16% Resin No free phenol  $5\frac{1}{2}$  6/4

17 Reg 16% Resin. 100 Benzyl Sandrac 550 4/4 100 parts  
oil will condense binds fine, <sup>Comp. of by knife under ring</sup> 1 plate no bubbles

18 ditto 400 Benzyl Sandrac 1 plate no bubbles

Comes off plates with knife but harder than 15%

16.1- 800 Benzyl Sandrac when evenly finished leaves plate

when under run knife - some bubbles on every plate  
shows it had lifts but went back

100 Benzyl Sandrac probably best  
+ safest

[ITEM(S) FOUND IN BOOK]

16% Resin 6 free phenol

This is Regular 100 Para 100 Benzoylperoxide

8. 6/4 no lift hard to get off plate will transfer  
OK Condensed Cuts hard on mechanical part - bubbles

7.8-6/4 Even -  $\frac{1}{8}$ " blatin, dark - will leave  
plate by a slight jar. One vinner lifted up  
+ Curled has some bubbles - fairly strong  
Condensed nearly if not fully

7.5 All free from plate. 1 Curled up one edge  
 $1 \frac{1}{2}$  blatin - Some bubbles 1 plate none  
don't bend much - Curled one shows no  
sectional lift - fully Condensed

7.25 All loose from plate 1 Curled no sign  
of a sectional lift. 1 showed a lift but no flat

7. 6/4 No bubbles - signs of 2 sectional lifts in one  
plate now flat. Slight jar with brass plates  
they are free. Metal very hard jar

6.75 No bubbles - not free but can get off nearly whole  
with knife will transfer OK - bend pretty much as  
possible - 1 at thickest is nearest OK on mechanical  
part Good Varnish - with thin acetamide

[ITEM(S) FOUND IN BOOK]

1230

1 am -

|||||

650	Sandra		190	7044
625	"		191	9033
600	"		192	8008
575	"	piece Cantory	193	7022
550	"		194	8026
525	"		195	7083
500	"		196	8009 new floor
475	"		197	7030
615	8000 Milk Center		204	8059
675	no paper or Glance		202	7068

[ITEM(S) FOUND IN BOOK]

16% Resin  $5\frac{1}{2}$  6/4

200 Insol Condensate - Cant strip

800 Insol " BlueCins - comes loose by  
jarring -

3,000, lifts + bubbles not condensed  
brillie none free from plate N G



[ITEM(S) FOUND IN BOOK]

No Raisin - above 475-6/4  
 All slick below 500 6/4  
 Bunker less 575 6/4 to 650 -  
 All free of plate above 500 6/4

Condensed 500 525 -

Not Condensed 550 575 - 600 625 ~~650~~

fully Condensed 650 + 475 - none of the other

Horsey 600 - 625 575 -

Mathony 650

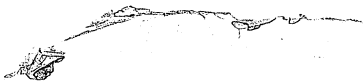
Proke	500	63	0 31
	525	60	0 34
	550	43	0 30
	575	50	0 37
	600	25	0 31
	625	102	0 34
	650	40	

Chalger

[ITEM(S) FOUND IN BOOK]

650	6/4	1.479%
625	"	4.07%
600	"	4.24%
575	"	4.9%
550	"	wrong weighing - 5
525	"	1.96%
500		1.96%
475		1.6%
675	no parameters	1.5%

[ITEM(S) FOUND IN BOOK]



6.5 9/4 fairly even - has few bubbles -  
hard to strip off got 3/4 of a venter showing it  
will transfer good - not quite fully condensed  
in thick part - Think this is good varnish

[ITEM(S) FOUND IN BOOK]

211-102

	Cold	1 <sup>st</sup> oven	2 <sup>nd</sup> oven
2:30	100°	100	101
2:40	120	119	118
3:20	125	122	124
4:20	130	130	130
5:20	135	135	134
6:30	140	139	140
7:50	145	145	145
9:20	150	150	151
11:00	155	154	155
1:30	160	158	160
2:50	165	164	165
3:50	170	170	169
4:40	175	172	175
5:20	180	178	180
6:00	185	185	184
6:30	190	190	190
7:00	195	195	195
7:30	200	200	200
30 min to reach		215	217
30 min more		225	224
30		235	236



[ITEM(S) FOUND IN BOOK]

6/4	Pana	Fris Phaset	Water su	Resin	Collipa	Stick or foam	Art	Hot Prod Count	Flex	Diver	Profo	Piece	Profo Sheet	Big Plate	Misc	Hot Leaf	Wrinkle	Hand
425	1%	600	1% Sande	Reg	—	Stick								9	4		V Board	199
480	1%	600	1% "	"		Stick								8	1		V Board	200
675	1%	600	No Sande	"	035	Stick	Condense				45		many	6	Very		Medium	201
675	None	600	"	"		Stick		a little			77	3	many	11			Cond	202
650	1%	600	800 (Wyle)	"	023	Stick	Hand	a little			45-57	2	1	5	→x			204
650	1%	600	200 (Wyle)	"		Stick	Hand				30	2	2	2	→x		Some	205
650	1%	600	1% Sande	"	031	Stick	Hand				30	3	2	2	→x			206

**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Record Book No. 6**  
**Notebook, N-12-00-00.5**

This undated notebook was used by Edison, probably during February 1916, for notes on the composition and application of varnish surfaces used for disc records. Included are notes describing a sequence of experiments numbered from 272E to 365E; some entries have been crossed out or marked "cancelled." Most of the entries indicate results obtained from varying the ingredients and proportions in the varnish applied, as well as varying the processes for baking and the schedules for the application of the transfer press. The summary of results usually provides a tally of acceptable and unacceptable record surfaces obtained. Also included are notes relating to attempts to remove wrinkles on surfaces. Some notes are the form of instructions to Sherwood T. (Sam) Moore, Archie D. Hoffman, or other employees. Inserted into the book is one loose item by Edison, which tabulates some of the results. The front cover is labeled "Disc 6." The pages are unnumbered. Approximately 160 pages have been used.

1 =	2 drops	3" PO	3 drops	24	— pull 0
2	"	3 OK	3 "	24	"
3	"	3 OK	3 "	24	"
4	"	2 OK	3 "	24	OK
5	"	2 OK	1 "	24	OK
6	"	2 PO	4 "	24	PO

Plates Too common

4 OK      2 OK

PO	fine III III II	
1		
2	grad	Put up 1 Cape plates in oven
3		include on following sched.
4		1200 lots
5	fair	1 40 158
6	Ref	1 40 192
Now III		2 55 242
		2 71 114 Cool

Transformed 2 = 30k plate 1 discard plate  
to make 2 -

1 = OK free 6-1-PO

2 = pull out - pull out

Its soft  
brittle

NG -

No prints

Scratches with finger nail Easy

272 E      find out what  
116 has in

Oven to be run on safe schedule  
75 plates each number flowed  
with 60 cc each - always 66 cc  
in all these Experiments  
Don't use any Sandrac in any

272 = 16% Resin 5 1/2% G

1 1/2 Para

Para always the same 1 1/2%

Var: Crisp in <sup>Var</sup> Mottle Very light oil scum  
on top of plates plates look OK

70 plates - 11 thick 59 good of  
good 36 wrinkled 4 uneven 19 even  
6 transf 2 OK - 3 pull out 1 Cool center  
Prints - 4 OK 1 poor print 2 old out 1:2



1 =	24" Drop OK	2" Drop Pull out
2	Stick	2" " OK
3	free - pull	4" " OK
4	3" OK	24 2 1/2" pull out
5	2 OK	24 3 1/2" OK
6	2 loose Pull out	8 1/2" OK

Plates too warm

4 OK

3 OK

Brought up one Cage in lab over following schedule

Cat 1220

1 pm 160

2 30 192

2 50 242

3 55 271

4 55 271

Extra Run 271° fails

Transfer -	Pull out free	6-2- bird
2 - "	1-4 -	9 2 po
3	OK free -	free bird
4	1 free bird	0-1- po
	free bird	6-2- bird

NO Prints

Scratches Easy with  
finger nail -

273EA =

75 plates

Duplicate of 272. Except

5% 6/4 - 1 1/2 Para  
flow 60 cc

Safety Schedule Big even

67 plates 6 Bubbles 61 OK

Not hardened enough -  
pulls out + breaks Var  
One side Very hard ~~etc~~  
24" drop other 2" drop  
Crops Writhe, speaks radiant from run  
locks OK  
67 plates 6 Bubbles - 61 OK  
of OK - 21 even 3 uneven 37 wrinkled

RO

1

2

3

4

5

6 III

None HT III

7 <sup>1111</sup> <sup>1111</sup> <sup>11</sup>  
1111 1111 11

good

274 EB

75 plates

Duplicate 272 Except 4.75% 6/4

160cc

65 plates 9 bubbles 56

oven -  
Craps healthy, slight oil scum var ok

oven

65 plates 9 Bubs 56 OK -  
of the OK 3 Even 53 wrinkled

Transfer 6 - 6 pull outs -

Print 6 -

- Inspection
- 1 = Margin Chk - <sup>small</sup> other side too loose
  - 2 = " " parallel Chk Margin
  - 3 = poor print both sides -
  - 4 = Margin Bubbles - dirty parallel Margin
  - 5 = parallel Chk Margin both sides
  - 6 = nearly parallel Margination

I had <sup>small</sup> in <sup>margin</sup> of  
possibly a slot to pull out <sup>small</sup> print -

Plates Cold

1 - One 4" PO	1 8" drop PO
2 " PO	3 15" PO
3 Loose PO	1 4" PO
4 Loose PO	2 8" PO
5 Loose PO	3 20" PO
6 1 4" PO	2 15" PO

No OK

Re-inspection

Must have to  
var plates  
within 1 hour

- 1 = both side Marginalia parallel -
- 2 = pull out on margin -
- 3 = OK - other marginalia parallel
- 4 = parallel Marginalia uneven
- 5 = parallel this -
- 6 = parallel Marginalia at poor print

No test

Easy Cut by finger nail  
goes in

Reproduction no signs of print  
Can't see where it breaks on smooth  
Awful Craft - side

275 EC

Dup 272. Except  $4\frac{1}{2}$  6/4

60cc

71 plates 5 bubbles 66 OK

Yarnish = Craps - Mathe slight tail  
seen - spikes radiate from rim Var OK

71 plain 5 bubbles 66 OK of cheap  
19 even 8 uneven 39 uneven

Wants something to stop pull  
outs - possibly Saurac ?  
#

276 ED

Duplicate of 272 except

$4\frac{1}{4}$   $\frac{9}{4}$  6cc

65 plates 10 bubbles 55OK

Vannish-Creasy-Klath: slight tail sum  
spokes radiate from rim Var OK

Oven — 66 plates 59 OK of  
which 16 even 5 uneven, 38 (unlike)

277E.F.

Duplicate 272 Except

4% 6/4 6000

67 plates 8 Bubbles 59 OK

Varnish - Creep Matted slight red seen  
spokes radiate from rim - Van OK

Oven = 67 plates 8 bubbles 59 OK  
of which 22 even 18 uneven  
19 wrinkled

278EG

Duplicate of 272

$3\frac{3}{4}$   $\frac{1}{2}$   $\frac{1}{4}$  60cc

68 plates 10 Bubbles 58OK

Yarnel = Drops, Maltol, soil sun  
Spoken slides from run - Van OK

Ovens - 68 plates 58OK of which

8 even 34 uneven 16 wobble

Transfers	1 -	free OK	free OK
	2	free OK	8-1 OK
	3	free OK	4-1 OK
	4	free OK	6-3 OK
	5	free OK	free OK
	6	" "	" "

No test for surface  
 Can just scratch surface  
 Req V will not allow this  
 schedule -

2796H

1412 Blanks

Regular Varnish Sandrac  
 left out, 7.9 - 6.00

69 plates 30 bubbles 39 OK

Vacuum - Even on plates - Mathe.  
 spikes radiate from rim - Var OK

Even 69 plates 39 OK 30 bubbles  
 of OKs 4 Even 5 uneven 30 bubbles

Transfers on  
 1412 blank 5/8 B put on brush dried 2 hours

Transfers 6 - 5 OK 1 OK Var -  
 Prints 5 OK -

Re inspected 24 hours after

- 1 = OK
- 2 = Margin OK Discard
- 3 = OK
- 4 = OK on Margin running in
- 5 = Poor print on Margin
- 6 = OK -

Bad

1 -	free OK	10-2 - OK
2	free OK	10-3 OK
3	free OK	4-1 OK
4	free OK	free OK
5	" OK	" OK
6	" OK	" OK

② think thick pin  
dull

RO	free	OK
1	free	OK
2	free	OK
3	free	OK
4	free	OK
5	free	OK
6	free	OK

Reinspected - this afternoon 24 hours

- 1 No 1 Old in nose + Margin radial
- 2 radial part - part - nose
- 3 Margin Cracks -
- 4 lengthwise 2" crack -
- 5 Old margin running into nose
- 6 Margin Cracks

Well 1/2 but tears blank off - OK

280EJ

Reg Varnish no sandrac -  
but with 7 1/2 % 6/4 60cc

76 plates 32 bubbles 2 Cracked 420K

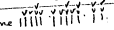
Varnish - Cracks speaks radial from  
run - Van OK.


Oven 74 plates 34 bubbles 400K  
of 40 OK 5 Even 2 uneven  
39 crumblers

6 - transferred on 1412 - Prushed 5/16 2 hour  
Print 6 - Inspected sealed -  
Transfer 6 - 2 OK - 2 Cracked Center 2 OK 1/2



1	free OK	free OK
2	" OK	4-1 OK
3	4-1 OK	10-2 OK
4	free OK	free OK
5	free OK	free OK
6	free OK	free OK

PRO Time 

1 good  
2  
3  
4 fair  
5  
6  
None  Ruff

Does like the Crack but is  
Very good 100% paint  
83% transfer  
a fine surface

Re inspected for Cracks

1 = OK  
2 = OK  
3 = margin edge ch.  
4 = crack in matrix  
5 = " "  
6 = " "

} This is Bad

281 EK

This is special 17 1/2 hour  
overnight schedule -

Req Van No Sandrac -

but with 7 1/4 % 4/4 6000

69 plates 18 Bubbles 51 OK

Varnish - Cracks too much, 20 plates  
Very recommend from run  
plates fair

Over 69 plates 18 bubbles 1 raise -  
50 OK of these 19 unrun 31 unrun

6 = transfers on 14 1/2 blanks, through 5 1/2 LB 2 1/2

Print 6 -

transfers 6 - 50K 1 chd Van -

Prints 5 OK

free - buds to

4-1  
free OK  
free buds to  
free OK  
free OK

Note the transfer saved the ring squeeze out

free OK  
free red margin - OK  
4-1 - OK  
free buds to  
4-1 - OK  
free OK

RO

1  
2  
3  
4  
5  
6

6H  
New IIII

fine IIII  
good II  
|

Scratches with finger  
Nail - well OK -

282 EL

Req Van no sandras,  
but with 7% 6/4 60 cc  
64 plates 23 bubbles 41 OK

Varnish - Creeps too much -  
spokes & around from run -  
plates fair

Open 44 plates - 30 Bubs - 44 OK  
of which 6 Even 6 Uneven  
32 combined

Transfer 6 to 1412 brushed blank 5/16 2 hr  
Print 6

1 =	10-22	other side
2 =	OK	parallel in Maroon Cks
3 =	Maroon Parallel	Maroon Cks
4 =	OK	OK both shift Parquet
5 =	OK	pp - parallel Maroon Cks
		OK both had low blank at 2 hrs, 1" long

Frez-Cooked Cnt OK  
frez - OK  
frez OK  
4-1 - OK  
Frez thru mung chd  
frez OK

4-1 - Cooked 1" pulled out  
4-1 - 6 and 1/2  
frez OK  
4-1 - OK  
4-1 - OK  
4-2 - 2 bnds &

RO  
1  
2  
3  
4 11 month -  
5 1  
6 1  
norm ~~HTT~~ III

Scratches with fingers  
Easy -

Remove from  
plastic before  
in transfer  
here

283EM

Reg Van no Sandrae  
but with 6 3/4 1/2 6/4 60cc  
68 plates 21 bubbles 1 Raise 460k

Warm - Creeps too much, apace  
evident from mm - plating form  
Oven (68 plates 21 bubbles fine)  
1 Raised 460k of colial  
8 Even 6 uneven 32 wrinkled

Print - 6

oneside

- 1 = Parallel Cks Wang
- 2 = "
- 3 = "
- 4 = Red spot mung chd
- 5 = parallel cks & mung chd
- 6 = " to mung

other side

- ditt  
" ditt to mung  
ditt -  
ditt - pp  
ditt

transferred 6 - 1 OK 3 left chkd 2 pullouts

Cracks in music ||  
feed line ch HTI  
Poor print ||

Not promising

284EN

Reg Van no Sandrac  
but with  $6\frac{1}{2}\%$   $\frac{1}{4}$  60 cc

71 plates 24 bubbles 47 OK

Varnish - Craps - fine speckles radiate  
from rim - plate 20-60 cc

Over 71 plates 24 fine bubbles  
47 OK of which 6 even 3 uneven  
38 wrinkled -

~~transferred~~

1 = free Red margin chkd	4" 2 OK
2 = 4" 1 - (untransferred)	4" 2 - OK
3 = 4" 1 OK	4" 2 - pullout
4 = 4" 1 OK	4" 2 OK
5 = free OK	4" 2 - pullout
6 = 4" 1 - 6 in	4" 1 OK

7 OK

Transfer Buffed - 60 2OK 3 pull out  
1 left cracked -

RO of fine ~~III~~ ~~III~~ II

1  
2  
3 good  
4  
5  
6 II

Can scratch with  
finger nail -

None III III

brittle dry cut.  
6/4 small

(1 Rec'd) - poor part very bad margin crack  
2 small Hornets Margin cracks -

(1 Rec fzd) line + margin cracks  
2 Rec " " "

(1 Rec fzd) line + margin cracks not great  
2 small margin cracks line

(1 Rec - out fzd) line  
2 small few cracks with numerous open cell foam

(1 Rec margin fzd) line  
2 small group 45° cracks margin + in same area 2 places

(1 Rec fzd) line + very thin margin cracks -  
2 small margin cracks + little right sample

285EO

Req Van no sandrac  
but with 6/5 6/4 60cc  
72 plates 5 bubbles 67 OK

Vanush = Cracks too much apacer  
radial - little plate good

Oven 72 plates 5 bubbles 1 chip  
66 OK of which 9 even 17 uneven  
40 wrinkled

Transfer

1 = 2-4" Bush	6-4" (thin) OK
2 = 2-4" OK	3-4" OK
3 = 2-4" PD	3-4" PD
4 = 1-4" OK	3-5" OK
5 = 1-4" Bush	3-4" OK
6 = 6-3" PD	6-3" OK

60K

Transfer Buffed repair.

6 transfer 1 OK 5 pull out

RO

1

2

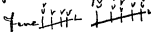
3

4

5

6 11

non 




good

Req Var

Gets worse as 6/4 diminishes

- (1) Rec lat radial ckt merge to margin - Very bad  
2 Smooth Very long right angle ckt

- (1) Rec'd Margin ckt right angle ckt   
2 Smooth right angle layout + groups of 45° angle ckt

- (1) Rec'd bad margin ckt  
2 Smooth ditto both opposite sides -

- (1) Rec feed line + margin ckt -  
2 Smooth right angle curved layout - bad margin ckt

- (1) Rec feed line + margin ckt used Van Flowed over margin  
2 Smooth Margin ckt + group 45° curved ckt w/ hatching

- (1) Rec pull out (stroke) by margin ckt  
2 Smooth Rec feed line - 45° group ckt + margin ckt

286EP

Req Var No sandrac

but with 5 1/2% 6/4 6000

73 plates 16 bubbles 57 OK

Varnish Creeps too much spakes  
residents plate four

Given 73 plates 16 bubbles

51 OK of which 11 even  
26 uneven 20 wrinkled

Transfer -

	pullouts	Pull out -
1	Buds	Buds -
2	Buds	PO -
3	Buds	PO
4	OK	PO
5	OK	PO
6	Buds + PO	Buds + PO

2 OK off Hand -

Freeze cooked wood

Freeze - OK

4-1 bind to

Freeze bind to

4-1 - Pullout  $\frac{1}{4}$  to stand

of 192 - Pullout  $\frac{1}{4}$

4-1 - OK

Freeze OK

4-2 - bind to

Freeze OK

Freeze bind - nearly

4-1 - OK

RD

Freeze  $\overline{\text{||||}}$

$\overline{\text{||||}}$

1

2

3

4

5

6  $\overline{\text{||||}}$

rough

None  $\overline{\text{||||}}$

Scratches with finger nail

287 EQ

Regular Varnish, <sup>No sandrac</sup> 8% Water  
6  $\frac{1}{2}$  % 9/4 1  $\frac{1}{2}$  % Para

60 cc

This means 22% free phenol

70 plates 11 Bubbles 59 OK

Varnish - Creeps too much, spales  
radial - fine mottle

Oven 69 plates 11 bubbles 1  
inground 57 OK (of which)  
12 Even 42 uneven 3 wrinkles

6 - Transfer to 1412 blank - brushed  
5% - LB Dry 2 hours

6 prints -

	1 side	other side
1 = plcks margin	margin	part of margin
2 = "	"	"
3 = "	"	"
4 = "	"	"
5 = "	"	"
6 = "	"	"

Transfer Inspection

After Buffing - 6 Trans 1 OK 5 pull outs

RO  
1  
2  
3  
4  
5 <sup>trans</sup>  
6  
none III III

fine  

good

Ruff 1

Very soft  
Var-Moore  
says surfaces are  
good Water bottles  
here -

Record Inspection

- (1 Record feed line Crax
- (2 Small Marq Cracks small -
- (1 feed line Cracks
- (2 Small many bad Marq Cracks
- (1 Record - big Marq Cracks many in new
- (2 Small mark also feed line Crax
- (1 Record feed line Crax
- (2 large Marq Cracks -
- (1 Record feed line Crax
- (2 Small Marq Cracks many parallel -
- (1 Record Extreme Marq Crax small -
- (2 Small larger many Marq Crax

288ER

Duplicate of 287EO

Except 6% 6/4 60cc

73 plates 10 Bubble 1 Raised 62 OK

Varnish Creeps fine Marq's  
plates OK

Oven - 73 plates 11 Bubbles  
62 OK of which 6 Even  
38 uneven 18 wrinkled

Transfer

- 1 = Edge Nox Bird
- 2 = Friz OK
- 3 = 2-4" OK
- 4 = 2-4" PO
- 5 = 2-4" PO
- 6 = 1-4" OK
- Edge Nox OK
- 2-4" pullout
- 4-4" OK
- 4-4" PO
- 2-4" PO
- 1-4" OK

60K



Transfers Buffed 6 3ok 3 Pull out -

RO  
1  
2  
3  
4  
5  
6  
none

fine  
good

6/4 too small -

(1) ~~fine~~ - fine line ck

(2) fine line - margin ck too big

(1) Rec - margin ck

(2) fine line - margin ck in same bed margin ck

(1) Rec fine line margin fine some extreme dyckles

(2) Rec fine line - few margin ck on a 5" one

289ES

Req Van Nostrand's Dup of  
287 EQ but with 5 3/4 6/4 6.00

71 plates 17 bubbles 54 OK

Vanish - Creep - fine Matter  
Van OK

Open 71 plates - 17 bubbles - 54 OK  
of which 20 edges & uneven  
26 wrinkles

Transfers

1 = 1-4" OK

2 = 1-4" OK

3 = 1-4" (Bwd)

4 = 1-4" OK

5 = 1-4" OK

6 = 1-4" OK

1 = 4" OK

3 10 - pullout

1-4" (Bwd)

3-6" (Big Pullout)

3-4" (Bwd)

2 = 4" OK

7 OK

Transfer - 6 - 6 pull outs

RO	fine	
1	good	
2-3		
4	fair	
5		
6	Ruf	

Prints not inspected for Pull outs or Birds -

1 = fine crack Extreme Edge Chk

2 "

X

This is due to a long pull out no transfer

When its printed it looks like X

Not promising lots of groups of radial cracks



290 ET

272 To 290  
Quinn Kiffman

Req Var no sandrac Dup of

287 EQ but with 5 1/4" / 6/4 6000

76 plates 13 Buses 63 OK

Varnish - Cracks too much  
speckles scattered from rim  
flat too fair

Open = 76 plates 13 buds  
Chips 1 - 62 OK of which  
3 Even 13 uneven 46 wrinkles

Transfer

1 = 4" large Pull -	3-5" Birds
2 = 3-6" large Pull	2-6" Birds -
3 = 2-4" "	2-4" Birds
4 = 3-6" Pullout	3-6" Pullout
5 = 2-6" Birds	2-6" Pullout
6 = Edge cracks Pullout	Edge cracks Birds

NO OK

Regular Varnish run on the  
Same schedule ~~272~~ 272 to  
290 - Safety etc see other book

230 plates 30 Bubbles 3 Cracked +  
197 DK but UNEVEN

Moore has chart of position in  
Oven of each set,

Req Dipped	thick	1 - free OK	free OK
1412 1/2 inch		4"-1 - OK	" OK
RO fine 1/4" 1/4" 1/4" 1/4"		4"-1 - OK	" "
1 fine		4"-2 OK	" "
2 fine		4"-1 OK	4"-2 OK
3 fine		free OK	free OK
4 fine		4"-1 - OK	free OK
5 1/4" 1/4" 1/4" 1/4"		free OK	even OK
6 1/4" 1/4" 1/4" 1/4"		free OK	free OK
None III		free OK	even OK
		" "	" "
		" "	" "
		" "	" "

all at 2 edge thick  
Can along at 4  
Even thickness at  
low edge V plate

Printed on 1412 brushed 5/16" 15" long 2 hour  
6 Print 5 discs on Chd Manan 1 cld Manan Comel  
Transfer 8 - 4 OK 1 left chd

Moore will pick out some good plates not chewed up  
at Edge + do them again

291 E

Req Oven schedule

Regular Var

Ordered & printed on 1412 1/4"  
Printed 5/16" 1.8 1.8 2 hour

But add 3% glycerine

Run like the other series

They go thru Req Oven  
Can't get in

Var report Color amber to cracks thru Center of  
plate leaving thin cracks + holes  
plates poor 35% patched -

99 plates 40 Even OK 37 uneven OK

Oven

99-plate 7 bubbles 2 Panned  
2 Chipped 1 Bent 1 cracked 10  
Total discards 22 77 OK

12 on Reg blanks  
Reg Ship

1	Free OK	Free OK
2	" "	" "
3	" "	" "
4	" "	" "
5	" "	" "
6	" "	" "
7	" "	" "
8	" "	8-1 OK
9	" "	6-1 OK
10	" "	free
11	" "	" "
12	" "	" "

Re inspection

1 - checks - other OK  
2 OK  
3 OK  
4 OK  
5 OK  
6 wrong OK other OK

No Test  
for surface

Rain

Print 6 - 142 blank

RD	Free OK
1	" OK
2	" OK
3 1 hour	good
4-1	" OK
5 111	" OK
6 11	" OK

unmarked

Free OK	Red Mang OK
" OK	free OK
" OK	" OK
" OK	8-2 OK
Free Red Mang	Free Red Mang OK
Free OK	Free OK
4-1 Red Mang	4-1 OK
Free OK	Free OK
" OK	4-1 OK
4-1 OK	Free OK
Free OK	4-1 OK
Free OK	Free OK
Free OK	4-1 OK
Free OK	Free OK
Free OK	Free OK
Free OK	Free OK

Three red Mang  
1 white OK red

292E

Reg over schedule

ordered & printed  
on 14/12 blank  
bunched 20 for  
Ship 2 hours

Reg Van but cold

5% -  
Epilepsia -

Trid get these in 272

Special schedule -

They must go thru

Reg over - too late

Vanish

Crop to outside - then shorter than  
Center 15% patches

Over

93 plates 6 bubbles 1 Rained 21 minutes

Blanks 29 OK 64

Reg blanks 12 10 OK 1 present 1 chd Van

Prints 10 10 OK -

Out of 500

293 - 293 to 317  
Run out #2 schedule  
#2 schedule  
Look out oven at 200°F

10 grams Reg Resin

1/2 " Alcohol

150 Milg Para

600 " 6/4

200 " Glycerin

no 1 Caliper 016 @ 021

5 mins right on hot plate before a raise  
occured & then started by a touch.

good cut semi horny, semi fraible, Think this  
will transfer OK, but may stick to plates  
Cant scratch finger nail after hot plate, could before

1 -  
#2 = 5.020 } all stuck to plate  
3 none  
4 4-015 }

Transfers OK slight jar edge of plate  
Came free. No cracks

press Temp plate 320 Reg Transf. Schedule  
5 min Cool gauge 1/3 lb on 12" ram  
Transfer Cuts Quite Horny  
Tough to chip

Transfer = OK no cracks or defects  
had hard time to get off

Cuts horny <sup>perhaps</sup> ~~perhaps~~ <sup>shades</sup> more than  
293

294 E      Took out oven at  
200° Fahr

10 grams Reg Resin  
16 " Alcohol  
150 Mily Para  
600 " 6/4  
400 " Glycerine

#1 Notubs } Waxy only in sections  
2 4-030 } all sticks to plate  
3 2-015 }  
4 5-015 }

Put # right on hot plate (about 285°) 7 mm it  
lifted up 7/8 its area - This probably shows it  
will transfer & not stick to plates

Curious -

on cooling - Dried in + was thus



Caliper 011 1/2  
012

Very tough long chip horny inside, hard outside

295E

Look out over at  
200° face

10 grams Resin  
16 " Alcohol  
150 Mils Para  
600 " 6/4  
600 " Glycerine

#1-3 015" oily 2 have small area near  
2-6-015" Edge that wavy other 2  
3-2 015" have none all black  
4-7-015"

right on hat plate. 4:02 pm at 406 side  
blister started 3/4 - white little warm  
undermin + got it off whole at 4:10 pm  
2 blisters -

Cuts horny inside hard but OK outside

Calliper 013 1/2 @ 016 1/2 019.

Transferred 295 came off easy OK

Cent scratches with finger  
nail - sticks 1/4" to black little  
bigger than 296 - this is good for undipped  
1412

Transfer with bird + hand to get.  
off shows increase in glycerine  
delays final hardening  
would have to go to 235° deg  
for 3 hours or longer in transfer  
press

Good glycerine is best in this  
Combination - Perhaps 296  
would be a tougher resin if  
hardened more.

324° Fals platen of transfer press  
Steam 107

Cuts Very horny - its surprising  
it works -

295° is Not near as horny  
but is is horny + quite curled up  
chip length -

Can't scratch with finger nail  
sticks to chip out - fine for undipped  
blank 1412 -

Heat heat  
with Mould box  
to handle

Jackout Oven at 200° Fals

296 E

293-4-5-6 Danted,  
none have even calliper

10 grms Resin  
16 " Alcohol  
150 Mily Para  
600 " 6/4  
1 gram glycerine

#1	- 1 015	} sectionally Wavy
2	- 2 016	
3	- 2 015	
4	2 010	

Put right on hot plate 450 pm - 505  
no blisters - Calliper 017 1/2 @ 016-016

This is different from 293-4-5  
It's cuts Very horny inside only up  
to hard rubbery stage - hard cut  
outside - Don't think it will  
transfer as it will be hard to get  
off or stick - This should probably  
be carried to 235 for 2 or 3 hours

Transfered - on hand had drop on  
Cement floor 2 feet - 1 bird -  
width 5/16 chip -



297E

10 grams Resin  
16 " Alcohol  
200 Mily Para  
600 " 6/4  
200 " Glycerine

# 1 - 2 010  
2 - 3 1-030 2 010  
3 - 1 4 010  
4 5 - 015 at Edge } Sectional Wrinkles

Sectional <sup>010</sup> wrinkles

Put on hot plate  
5:50 pm at 611 (found it 3/4 lifted)  
got it off whole while hot,

Dropped 2 ft on Concrete small  
angle crack bend but nothing  
pulled out - Not Condensed  
Enough

Horny Tough chip -

Cent scratch with finger nail  
Will do for 1/4" chip

298 E

10 grms Reg Resin  
16 " Alcohol  
200 milg Para  
600 " 6/4  
400 " Glycerine

#1 - 2 015  
2 - 2 010  
3 - 2 010  
4 - none

2 sectional wrinkles 2 none  
on hot 6.19 - 6.24 pm blated edge

Transferred - Loose - birds in checks at  
angle - no actual pull out  
net condensed hard enough

Very Tough horny chip

Can't separate with finger nail  
got off plate very hot,  
Caliper 015 E 013 - 15 E

299 E

10 grams Resin  
16 " alcohol  
200 Mly Para  
600 " 6/4  
600 " Glycerine

# 1 - 4 - 015  
2 4 - 010  
3 3 micro  
4 1 - 015

All sectional wrinkles



on hat 6.19 - 6.24 per cluster  
at Edge

got it off plate very hot -

Calliper - 013 - 019 - 012

Transformed Very tough heavy  
Cut - Came off with knock on  
Cement table Transp. Ok  
Can't scratch finger nail

Considering the 1412 is not dipped  
this is a very good weld  
Good horny tough chip cut.

300 E

10 grams Resin  
6 " Ethanol  
200 Mlq Para  
600 " 6/4  
1 gram of glycerine

#1 - 7 - 015  
2 - 1 - 020  
3 - 5 - 015  
4 - 6 - 015

All sectional wrinkles  
1 very little -



on hot plate 6.19 - 624 - entire  
veneer blistered up Venes like  
got it off whole when very hot  
Cecliper 017 @ 015 015

Cuts horny both Edges -

Transfer Came free Easy  
Caut Scratch finger nail - transfer OK  
Welder 1/15 to 3/16 fair -

After extra schedule up to 235

Transfer Cut hard Easy release  
Weed  $\frac{1}{4}$ " piece -

301E

10 grms Reg Resin  
16 " Alcohol  
100 mlq Para  
600 "  $\frac{6}{4}$   
200 " Glycerum

#	1 -	5	015	} Sectional wrinkles 1 now mostly near Edge
	2	3	015	
	3	2	020	
	4	7	015	

1 on hot plate 9 pm 9.01, Blister  
Shows effect small pain  
These would not stick in Transfery  
I think

Transfer Came off Easy  
Cut some pink fumes rapid  
Cut some honey

After Extra schedule to 235  
Came off easy OK

After 235° Fahr Extra  
Schedule Transfer

Cuts semi hard - Easy to get off  
Weld 5/16 piece

302 E

10 grms Resin -  
16 " Alcohol  
100 mg Para  
600 "  $\frac{6}{4}$   
400 " Glycerine

#	1 - 3	015	Sectional wrinkles
	2	7 - 015	1 none
	3	5	015 all edge
	4	7	020 nearly all edge

1 = on hot plate 9 pm - 9.01. 6 holes  
shows effect small pore  
This would not stick in transfer  
Transfer  
Came off on dropping 4" on Cement table  
It's OK  
Only little horny ~~bit~~  
Can't scratch finger nail  
After Extra schedule to 235°  
OK 4" drop

After Extra 235° Fabr Schedule

Transfer - loose,  
Weld 5/16 chip - flat hard & horny  
Very good Tough chip -

303 E

10 gms Reg Resin  
16 " Alcohol  
100 Milg Para  
600 " 6/4  
600 " glycerine

#1	6	0.25	
2	5	0.15	Sectional wrinkles
3	1	0.15	
4	3	0.15	

1 on hot plate 9 pm 901 published  
shows effects small para  
This would not stick to plates in  
transferring & chunk -

Transfer Free release small  
jar

Cuts quite horny - seems to be  
two 010 pull out  
Welds 1/4 curls + less

after Extra 235° take 2 chisels  
5/16 chip for cover loose from  
plate like 303  
Cut hard horny, rough chip  
Very good -

304 E

10 grams Reg Resin  
16 " Alcohol  
100 milq Para  
600 " 6/4  
1 gram glycerine

#1	-	16	-	1/2	2-020	
2	-	1	030	4	015	Sectional counter
3	-	3	010			1 mm
4	-	3	025	6-015		

1 on hot plate 9 pm - 9:01 pm Blastar  
shows effect of small para  
This would not stick to plate in  
transfer & shrink

Transfer = 304 was loose free  
release  
little horny cut chip level  
rough

Weds 1/4 to 1/2 circle →



after  
Schedule 235<sup>o</sup> Fall

Transfer

Break blank before comes off

305 E

10 gms Reg Resin  
16 " Asphalt  
150 ml 9 Para  
550 " 6/4  
200 " glycerine

- |    |    |          |            |                          |
|----|----|----------|------------|--------------------------|
| #1 | 8  | 2 of 015 | 13 microns | no wrinkles              |
| 2  | 16 | of 020   |            | Very small sectional 10% |
| 3  | 1  | 025      | 6 of 01    | no wrinkles              |
| 4  | 10 | 020      |            | no wrinkles              |

on hot plate 905 per 906 blistered

Transfer Pull out bad brake  
Var also pulled off some of the  
blank

Don't cut very horny  
Don't weld take off by  
undermining <sup>1/3 of whole</sup>  
not need 6/4 for schedule of  
200 final <sup>1/3</sup> counteract finger nail

After 235° F. solid

Breaks blank before it  
will come off —

306 E

10 grms Reg Resin  
16 " Alcohol  
150 " Mily Para  
550 " 6/4  
400 " glycerine

#1	22	015	-	several wrinkles
2	5	015	1-	" "
3	10	015	-	no wrinkles
4	7	015	-	no wrinkles

on hat plate 905 pm 907 blunder

Transfer - pull + breaks  
varnish picks up blank

Cuts brittle honey

Not enough 6/4 for  
final temp of 200.

Can't scratch with finger nail

After Extra schedule 235° Fac  
Transfer

Hard get off bag pull out  
ng -

307 E

10 grms Resin  
16 " Alcohol  
150 Mlg Para  
550 " 6/4  
600 " Glycerine

1 - 4	015	Sectional wrinkles
2 - 12	010	"
3 - 16	015	"
4 - 4	015	"

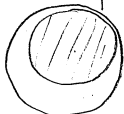
on hot plate 905° 906° 907°

Transfer sticks bad pulls out 1/2  
of the Varnish - pulls up blank  
Very honey net enough 6/4  
for this schedule - must  
go to 235° hold longer at that  
point

# NOTE



puff up like  
this on hot plate



When cool contracts  
to almost flat

Day from  $1/8$  high at X to  
0.05 or nearly flat -

This shows a big stretch  
or elasticity & a return  
Practically an elastic  
stretch & also a deformation  
or permanent stretch

308E

10 grams Reg Resin  
16 " alcohol  
150 milg Para  
350 "  $6/4$   
1 gram glycerine

1 - 2 - 01	sectional corners
2 - 2 - 01	"
3 - 9 - 01	"
4 - 4 - 015	"

On hot plate 905 pm  
1012 blisters but had to touch it  
with point pencil -

Transfer - slash 10" Drop  
on Cement - pulled out piece & took  
some blank with it not miff  
 $6/4$  for the schedule -  
After 235° full schedule -  
free release Red Center -

ng

309 F

10 grms Resin Resin

16 " Alcohol

150 " Para

500 " 6/4

200 " glycerine

Note tested must return to 305 for  
3 hours

310E

10 grms Resin  
16 " Alcohol  
150 Mlg para  
500 " 6/4  
400 " glycerin

Not tested must run to 235 for  
3 hours -

311 E

10 grams Reg Resin  
16 " Alcohol  
150 mlq para  
500 " 6/4  
600 " glycerine

Next test must run to 235  
for 3 hours

312 E

10 grams Resin  
16 " Alcohol  
150 mlg Para  
500 " 6/4  
1 gram glycerine

Not tested must run to 934"  
for 3 hours



313-15-16-17 -

Evidently higher the Condensation by  
more 6/4 or higher furnace heat  
the worse the result -

After 235° Fahr Extra schedule  
Loose of the plate

Hard honey cut

3/4 weld - Take some of blank with it  
in center gradually less towards  
Center, but a shade in repeats  
there

313E

10 grams Reg Resin  
16 " Alcohol  
150 Midg Para  
650 " 6/4  
200 " Glycerine

1 =	9 -	015 -	Sectional wrinkles
2	6 -	020	wrinkles nearly all over
3	7	025 -	" "
4	2	1-030 - 1 020	Wrinkles all over

Hot Plate 1107 - 1109 Touched Center & it  
blistered - didn't remove -  
Contracted back nearly flat,

Transfer - Free release, a fair  
Hard cut OK only slight honey

Transfer OK. weld no 1/2" chips  
pulls a little of blank away

~~314 E~~

~~10 grams Reg Resin  
16 " ethylal  
150 " Para  
650 " 6/4  
240 " glycerine~~

After Petra 235° schedule -

Loose on the plate,  
Hard honey plates cut.

No weld 1/2 piece  
takes shade of blank



part on 1 lifted on  
hot plate

Proble 66 - many pieces  
Calliper 0174 017 016

315 F

10 grms Resin  
16 " Alcohol  
150 milg Para  
650 " 6/4  
400 " glycerin

1 =	2 -	015	3/4	wounded
2	1	020	3/4	"
3	3	mins	3/4	"
4		none		wounded all over

Hot plate 1107 1109 touched  
Center & it blows.

Didn't remove it continued back  
nearly flat.

Transfer - Came off hard -  
Dropped it 15" on Cement table,  
Transfer OK

Hard cut shade honey but OK  
Welding 1/2" chips  
pull some of blank away - black

Edna schedule 235-

Transfer  
Hard, semi honey

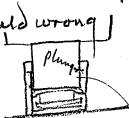
NOTE

Use 1/2 Vickers come off  
nose of plunger

next

Every transfer seems to  
be free release on one side  
the other requires jar

This is probably due to  
plunger side being Colster  
also mould wrong



Transfer - One inch drop on  
cannot free release

Will fix this -

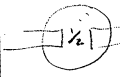
Look out our mould holder  
& press up stairs -

316 F

10 grams Resin  
16 " alcohol  
150 mlq Para  
650 " 1/4  
600 " glycerine

1 = 1 - 020      Worked all over  
2    3 - 020      "  
3    1   015 -      "  
4    4   015 -      "      Transfer free release

on hat plate 1107 1108 blades  
Stand Center      Didnt remove Vener it  
Contracted back nearly flat

 Brake 35 - <sup>its one of the little</sup>  
Collaps - 016 016 016 <sub>spindles</sub>

Brake many pieces  
Welds 1/4 to 3/4

## NOTE

The Contraction is so great that it looks as if in transferring + Printing we should use lowest temp possible in press if we cant get the blank to contract in same amount.

This has got to be explained + Experimented on - Perhaps we should use hot oil instead steam,

Think 250 is high enough after extra 235° Fahr schedule

Transfer  
loose on plate, horny tough Cut  
no weld 1/2 - none of blanks  
Corner soft

## 317E

10 grams Resin  
16 " Alcohol  
150 milg Para  
650 " 6/4  
1 gram glycerum

1	5	015	winkled all over
2	2	micro	"
3	1	025	"
4	4	020	3/4 winkled

On hot plate 1107 1109 Touches  
(it bubbles)  
Didn't remove veneer it  
Contracted back nearly flat.

~~1/2~~ Broke at 73  
Calliper 016 1/2 - 020 017

Transfer-free release + OK  
Welds nearly 1/2"

The blanks being given bowed out



allowed good print

This probably would not have occurred if they had previously been thru transfer press

This proves that a fully hardened veneer will not weld to a dipped blank it must not be fully hardened by semi condensed This shuts out this process -

Only sesame oil to loosen <sup>Veneer on</sup> plate in oven will work

318 E

Reg Varnish plates brought up (had been thru Reg oven) in 6 hours to 280° Fahr + separated from the plate -

Placed Veneers directly on Resin moulds after returning up -

No transfer

Prints OK no cracks

4

Fini ||

5

quad ||

6

Now ||||

No weld at all comes off

2" pieces -

This project is fine for printing but dont think can weld it

NOTE front Handblanks 24 faces

16 OK 8 OK 16 Roll out  
Reg (blanks 24 faces) 8 OK 16 Roll out  
just the top or 15 -

Hand 10 4 loose  
Reg 13 2 loose

319 Transfer 40K

Top 40K Bottom

1 - Loose OK	20-3 - PO
10 - PO	20 6 - PO
20-2 - PO	Loose OK
10 2 PO	10 2 OK
1 / OK	20 3 PO
1 / OK	20 5 PO
3 / PO	20 3 PO
5 / PO	20 2 OK
1 / PO	20 4 OK
10 2 PO	20 3 PO
20-3 PO	20 3 PO
10-1 OK	20 3- PO

320

6 Prints all bad Cracked - Dip Var not crumpled flows  
These cracks - Picked for worst wrinkles

RO 1 - big wrinkles Very conspicuous  
# 6 - III Fine III Very fine III  
No RO III

Only one face had poor print  
Weld Var must be got rubbery in Transfer not  
be a Var. Think of slush Cracks

This is Record of 320  
not 319

319 Rev  
319 E

Reg Cracks  
Prints 6 - No poor prints at all  
These cracks come in  
good III Some time after transfer  
No. V surface

like - 116 Varnish - Rem only no free  
phenol 5 1/2% 6/4

1 1/2% Para No Sandiac or  
negation  
2% glycerine -  
flow 6 cc each plate

Varnish  
Works good plates even - no  
break away but surface of varnish  
looks like fresh scales

Over

75 plates - 75 blinks 3 - Chipped 1  
Wrinkled 33 Discards Total 36  
OK 37

Transferred on Regular blanks  
Reg Dip -

Prints  
4 - III  
# 61 none III  
Fine III Fine III Extra fine III  
Hard blanks 4 1/2  
6 Cks all disc out  
9 plates out  
3 1/2 cks

320 E

Transfers

300 Made dupes  
 (hand) blank  
 & 31 made dupes  
 Reg. blank 10  
 got off

Top	Bottom
4-1-OK	20-2-PO
10-1-OK	10-1-PO
20-2-OK	10-1-OK
4-1-OK	15-1-PO
4-1-OK	15-1-PO
4-1-OK	15-1-OK
4-1-OK	4-1-OK
4-1-OK	20-2-PO
Loose OK	Loose OK
10-2-OK	Loose OK
10-2-PO	10-2-PO

Top Locon

Big wrinkles  
 Very cheap 10-1-10-1

10 OK  
 2 POW  
 104

10 6 OK  
 6

Prints - used most wrinkled plates

RO-1-

1  
 2  
 3  
 4  
 5  
 6 11

None

These prints are all  
 cracked but only 1  
 poor print but the  
 dup Van came thru clear  
 made (but still cracked)  
 surface - it was not  
 conditioned in bromine

These in # 319 page are OK

Many by wrinkles  
 but some plates with  
 wrinkles

Hoffman

320 E

Dup of 319 E

But 4% of glycerin

flow 60 cc

Van works fine - Even - don't  
 Creep -

Oven

67 plates 1 Bubble 59 wrinkled  
 OK 7 =

1412 blanks - Brushed 5% B Van  
 Dried 2 hours



Wrinkle Expts

1412 - Ruffed  
6 - 6 Pullouts

RO  
2  
31  
3  
6 1/4  
non 1/4

Not enough  
6/4

Tap - Ballon  
4" 1-OK 20-3-PO  
2 3 OK - Loose OK  
Loose Small Bin 4-1-PO  
Loose " Loose  
4" 1 bin 20-2-OK  
Loose OK 20-2-PO-  
Loose OK 4-1-PO  
Loose OK 15-2-PO  
15-2 Skipped 10 2 OK  
10-2-PO 8-1-PO  
8-1-PO 4-1-PO  
Loose OK 20-2-PO  
20-2-PO

Will print as many as possible

24 surfaces 8 OK 16 Pullouts

1412 - Transfer best Edges  
Counted fine -

- |                      |          |
|----------------------|----------|
| 1 = 4-6" 1 small bin | 8 10" OK |
| 2 = 2-4" OK          | 4 10" PO |
| 3 = 2-4" OK          | 4-10" PO |
| 4 = 2-4" Small bin   | 2 6" OK  |
| 5 = 2-4" OK          | 4 10" PO |
| 6 = 1-4- PO          | 4 10" PO |

Very little flow to Edge

5 OK

321E

Huffman

Dup of 319E

But 8% of glycerine -  
flow 60cc

Even OK Vacuum

OVER

Note 70 plates finished 30 raised &  
Wrinkled 15-17 OK

Transferred on 1412 blank -  
picked out plates having most  
wrinkles - 5% damp 1/4 Var  
Browned dried 2 hours

- Inspection of Prints
- (1) Red big many in parallel
  - (2) Small many in parallel
  - (3) Round head many in parallel
  - (4) Small 450 angle in parallel
  - (5) Round head many in parallel
  - (6) Small many in parallel

- (1) Round head many in parallel
- (2) Small head many in parallel
- (3) Round head many in parallel
- (4) Round head many in parallel
- (5) Round head many in parallel
- (6) Round head many in parallel

# Note =

with glycerin 5% water  
on hot plate thin

1140 on gauge on sticks

20 min at 120° Fals  
15 " 130 "

1225 went to 175, big bubbles appear 1/4 dia  
in the thick one a few bubbles  
in the very thin one, poked the thick one  
went clean - put back at 1230 to  
142° Fals

At 1245 thin one started to <sup>+</sup>condense  
at 160° at 1240 pm Condensed bubbles  
but just at thin part in thick  
one many fine bubbles appear

The thick one 164° starts showing  
fine bubbles - at 1255 started  
Rubbery - 164° John 1 pm thick  
gone Rubbery

Danger point 142 to 165 @ 165  
with glycerin 1.50 pm quiet smaller  
bubbles on thick a

The thick one is more dense in fine  
bubbles than the thinner one

# Schedule for Glycerine Varnish

30 min to 100
30 " 115
30 " 120
30 " 125
40 " 130
40 " 135
40 " 140
40 " 145
40 " 150
50 " 155
60 " 160
60 " 165
50 " 170
40 " 175
40 " 180
30 " 185
30 " 190
30 " 195
30 " 200

at 2 pm 168 -  
210 196 no change  
230 196  
235 204  
237 off - Cool

Very quiet dist between thick &  
thin Van plate thin one well  
condensed so thick one is  
not as advanced only a  
little

Transferred them in  
Reg schedule -  
small 1" thick  
Chambered Edges

Hand got off blank  
thin one bad



Thin one I have more condensed  
is OK -  
shows of dist Condensed in thin  
plate -

1 each to be taken out for test

D

322E

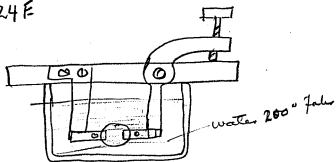
Transfer <sup>Regular</sup> 12 blanks which  
has been sprayed with  
Varnish & dried 2 hours  
Use Reg plates —  
Print 6 — to learn  
surfaces —

323 E

quinn

1412 Blanks - Sprayed  
dried 2 hours put in  
lathe with a feed  
+ feed polishing point  
from Center cut one  
side only ~~15~~ 50 threads  
to inch or thereabout  
Transfer 6 -  
Print 6 -

324E



## Two glycerine Disc

Condensed on heat plate to 190  
@ 200 in 2 1/2 hours transfer  
by force, not condensed enough  
pulled out after wards placed  
the thick end face down on  
plate 3 hours found it  
fully Condensed + Welded  
tight to 1412 disc —

Evidently after the transfer  
& longer its kept in transfer  
press better the weld

New point

PHENOMENON

325E

~~Special case~~

~~Oil make up Bottle~~

~~30 grams Resin~~

~~48 " Alcohol~~

~~450 milg Para~~

~~1500 " 6/4~~

~~1500 " Glycerine —~~

### No 3 Schedule

20 min to	115	
20 "	125	
30 "	130	
60 "	140	
100 "	150	dangerous for bubbles with glycerine 5% + 6/4 6% - 150 para.
80 "	155	
60 "	160	
40 "	165	
40 "	170	
30 "	175	
30 "	180	
30 "	185	
30 "	195	
30 "	200	
Hold at	200	for 30 min -

### Additional Schedule X

60 minutes to	200	
30 "	210	
40 "	220	
40 "	225	
40 "	230	
40 "	235	
Hold at	235	30 minutes Cool

Latest Schedule from Experiments  
Thin & thick glycerine Disc on Heat plate  
from Room Temp 2 hours drying

20 min to

20 "	115
30 "	125
30 "	135
30 "	140
30 "	145
60 "	150
80 "	155
90 "	160
100 "	165
80 "	170
60 "	175
50 "	180
40 "	185
30 "	190
30 "	195
20 "	200

### No 2 Schedule

292 to 317

Run on this  
Schedule

2 Schedule

780 min 13 Hours

Dup of 326 E made right

Duplicated it.  
Worked the same but finally hardened

Dried in Air 15 min  
Put on Hot plate gauge

130° Fahr	11,40.	ok	} no bubbles at all
156 "	11,42	"	
168 "	11,46	"	
174 "	11,50	"	
184 "	12 Midnight	"	

Its soft liquid varnish here no signs  
of thickening or condensing

198° Fahr 12,10 Big bubbles  
appear suddenly when I cross it -

198° at 12,15 Suddenly  
went rubbery - left it all night  
at about 170 but it is not hard  
enough I think for use

This is rapid condensation

I add 300 more Mily  
see 328 E

326 E Special

I put 8 discs poured from a

Varnish

30 grms	Reg Resin
48 1"	Alcohol
1500 Mily	6/4
1500 "	glycerum
450 "	Para -

Dried in air 4 1/4 hours by  
mistake put on gauge on inch  
stick right over hot plate  
On at 8,25 pm - went right up to  
130° Fahr at 9,20 140° Fahr  
at 9,50 pm 158° - not rubbery  
at 10,05 162° Fahr not rubbery

As they are red the Para has probably  
been left out  
10,20 pm -

Its soft glycerum make it like putty  
6/4 left out by mistake

Am Duplicating it -  
No bubbles - So its the action of 6/4 gives Bubbles



RO	Fine				
1					
2	good				
3					
4					
5	fair				
6	Rough				
None					

This dont promise good, evidently  
not homogeneous -

327E

Calliper 1412 Blanks +  
Pick out 12 that are uneven  
in Calliper - take these put  
against a face plate +  
face off true with a Diamond  
tool fine feed + spray +  
Transfer Print 6 or 8 to  
get a surface test.

Originally Callipered from 014 to 027 out  
Blanks after turning brushed 5/16" - 2 hours  
Reg Van steel - 13 Turned 12 OK 1 Cooked  
Center.  
Print 12 - 50K 7 Old Maripon of which 4 are Comet

3 10 PM 178 no extra bubbles have appeared  
 3.12 " 180 -ok Since Rubber Condensation at 145°  
 3 15 200 one  $\frac{1}{4}$  round bubble appeared at Edge  
 3.17 208 on No 3 - no more bubbles appeared  
 3 22 208 on 1-2-4+5 since 145°  
 4 224 only 3 lifted others OK no further  
 bubbles have appeared

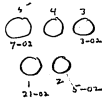
Been on gauge since 4 pm now  
 9 15 pm about 7 hours total  
 Cuts horny but hard think it OK -

328 E

This is 2nd Run of 326 E with  
 300 Mldg  $\frac{6}{4}$  more added making  
 600 Mldg to 10 qms Resin at 6%

Air drying 12 15 put on gauge  
 $\frac{1}{2}$ " above hat plate at 150 psi -

128° Fahr -  
 1 40 " 155 pm ok -  
 1 42 " 2 00 " 1 big bubble other OK  
 1 44 " 2 07  
 1 38 " 2 13



No 1 went really 2.07 - 144°  
 2 " 2 13 138  
 3+5 " 2 48 142  
 4 " 3.02 145

Stand up to see if more bubbles appear

305 160  
 306 170  
 308 172

See left hand page

## Phenomenon

When a solvent becomes  
Rubbery the mottled +  
wrinkles appear, with the  
rubbery condensation  
not before = yes they do, they appear  
in drying on the rack

When plates are drying  
The bottom or face of plates  
shows channels all  
connected together formed  
externally by action of  
Paria - these net work  
is dark -

Phenomenon after <sup>the work</sup> Rubbery state  
no more bubbles appear

## Phenomenon

328E

In absence of much  
draught ordinary  
Conditions moves +  
gives holes + bare spots  
but in 1/2 hour comes  
even - But if there  
is big fan draught  
don't do it Works  
fine - then with glycerum  
Van

329 E

to see if glycerine  
changes —

pour 3 discs  
+ also put some in  
Bottle dishes

10 glycerine  
10 water  
3 grams  $\frac{6}{4}$

There is no doubt but what  
the glycerine is evaporating  $\frac{1}{2}$   
gone 6 hours in bottle dishes

Boiling Point is 540° fahr. Yet it  
Evaporates slowly at 285° fahr.

330 E

10 grams glycerine  
10 " water  
3 "  $\frac{6}{4}$  para  
500 "

at 945. The Para Para is left considerable  
of the glycerine evaporated —

both on bottle dishes at 252 pm —

330 E

K<sup>o</sup>3  
13 Hour Schedule  
+ Extra to 23<sup>o</sup>

10 gram Resin  
16 " Alcohol  
600 milg. 6/4  
No para  
200 " glycerin

Notice of wrinkles

1 =	No bubbles	} wrinkles extreme edge	} all light. OK	
2 =	" "			} wrinkles at Edge
3	4 015			
4	3 020			

Transferred 1 off smog 2" drop cannot Pull out  
only little hardened Cross between Condenser & Resin  
bottle raft not tough honey - Cant get with  
finger nail no well can strip off half at least  
don't stick to it

# PHENOMENON

All the worms, wrinkles etc  
are on inner face of Veneer

Use 331 - wrinkles appear

by touching surface of  
Varnish they are not affected  
showing they are at the  
face of plate in contact with  
the Varnish - on will not

be on face of Var Plate  
& will appear on face of the

Record Not sure of this  
Its the opposite for big  
wrinkles

331 E

Done 3 schedule  
+ Extra to 23rd

10 grams Reg Resin -  
16 " Alkahal  
600 milg G/4  
600 " glycerine  
No para

1 = 14	tubs	020	Bad	} wrinkles near edge } no "wrinks" } No wrinkles
2 = 7	"	020	"	
3 = 8	"	015	"	
4 = 7	"	015	"	

3le

Big Press  
Transfer came off 1/2 doz drops 6" pull out  
Rems condense, not heavy enough but half by itself  
Can't scratch finger nail. Not weld can get off  
1/2 the Veneer Don't take block with it

332 E

No 3 Schedule  
+ Extra Sch To 235

10 grams Resin

16 " alcohol

600 mg 6/4

1 gram glycerine

no para

1 = 10 buti 025

2 = 1 " 015

3 = 3 " 015

4 = 4 " 020

18

Edge wrinkles not bad

no wrinkles

wrinkles at Edge

" "

not very good on  
decanting

Transfer Resin

Loose = Wild hair. pulls off some of the blank  $\frac{1}{4}$ " chip

OK = Cuts brittle not horny - In a cross between  
Resin & Condensate - Can't scratch with finger nail  
Lenses that this should work as good as loose  
light red color on plate - That it is loose is  
probably due to excess of glycerine

333E

~~10 gms Resin -~~

~~16 " alcohol~~

~~600 mg 94~~

~~600 " glycerine saturated with~~

lime - 100 "

~~Para -~~

*Cancelled*



334 E

~~10 gram Res. Resin  
16 " Alcohol  
600 Mils 6/4  
600 " Glycerine saturated  
with Baryta (BaSO<sub>4</sub>)  
100 Mils Paris~~

Cancelled

335 E

1103 delimit  
4 trials 233

10 grams Reg Fiesin  
→ 14 " Aldahal  
600 " Mily 6/4  
600 " Glycerine  
100 " Para

1 = 5 Pubs. 020 } Wmated all over - bad  
2 = 5 " 020 } " 1/2 the area - bad  
3 = Micros } loose on plate  
4 = 3 bits 010 - Micros } 1/2 area Wmated -  
10

Big Press Transfer - loose + ok Cant scratch finger  
nail - Cuts a little horny not as brittle and as  
330 - 331 - shows action of Para 1/4 to 1/2 chip used  
Taken none of the blank; Dark red on plate  
due to para Condensing it more. Note def between  
332 + 335 = no para + para

336 = E

No 3 Schedule  
4 lbs 5 235

10 grams - Resin  
→ 14 " Alcohol  
600 Milg 5/4  
50 " Paria  
400 " Glycerine

1 = 8 bits 0.25	Wrinkled all over 6a
2 = 3 " $\frac{1}{8} + 0.25$	1/2 area wrinkled "
3 = 5 " 0.25	Wrinkled all over "
4 = 4 " 0.25	" " " "
20	

Big press - Stick hand - pulled whole face of the blank off 2 or 3 drops on Cement, has a soft partially horny cut - can't cut with finger nail & note a crack, brittle cut chips not tough enough to prevent brittle cut, chips out

337E

#3 Schel  
+ 235 Extra's

10 gms Reg. Fission

→ 14 " alcohol

600 Mily 6/4

50 " para

6000 " Glycerine -

1 = 2 bits	015	} Wounded 1/2 area bad	
2 = 2 "	015		" 3/4 " "
3 = 3 "	015		" whole "
4 = 3 "	020		" All over very bad
	10		

Big piece Transfer - stick very hard many  
times dropped on cement - the pull out  
cant crack with finger nail comes away  
from blank  $\frac{1}{2}$  clean no weld, home but edge  
cut chips out - face cut horny + fairly tough

338/E

#3 scheduled  
Extra Sale To 234

→ 10 gms Rec Process  
14 " alcohol.  
600 Mely 6/4  
25 " Para  
600 " Glycerin

1 = 7 =	0.25	} wrinkled all over - bad	
2 = 5 =	0.15		" 1/2 fair
3 = 5 =	0.25		" allows bad
4 = 7 =	0.25		" " Very bad
	$\frac{7}{24}$		

Rec Process Transfer - Comes off very hard 6" 6 times  
its OK - brittle Cut Condensate Resin Cut  
now will come off clean - Edge cut very brittle  
if bag chips attempted - Cant scratch paper nail

339E

#3 schedule  
+ Extra 9/2  
235

→ 10 grams Resin  
14 " alcohol  
600 mlq 6/4  
10 " Para  
600 " Glycerine -

1 = 1 - 025 { would 5/10 - very bad  
2 = 9 - 025 { " allow = "  
3 - 3 - 020 { " " "  
4 = 7 - 020 { " " "  
20

Big Press Transfer - Loose Ok - family honey  
not very brittle - Edge cut very brittle chip out  
very easy when attempt made to cut a chip  
no weld Comes of 1/4 @ 5/16 clean  
Cant scratch with finger nail. but close to it

340 E

#3 schedule  
of Et sch 15  
2 3/4

10 grams Resin  
→ 14 " Alcohol  
600 Wt% 5/4  
100 " Aniline Oil -  
600 " Glycerine

1	12 - 020	wrinkled	3/4	bad
2	7 - 020	"	1/2	"
3	4 - 020	"	1/2	"
4	2 - 010	Raised	8/10	no wrinkles
	<u>25</u>			

Big Press - Transfer to wax - Can just scratch by  
finger nail only a shade. Edge cut hand chips  
out if attempt very limited cut - 3/4 well corner  
off nearly free of blunts faces - By press cut on  
flat, brittle

341E

#3 schedule

acc of it describes -  
alcohol -+ Ethanol 50%  
23%

→ 10 grams Resin Resin  
 14 " ethal  
 600 Mlg 6/4  
 150 " Anilin Hydrochloride  
 600 " Glycerin -

1 = 3 lbs	020	} 1/2 unrolled ring box
2 = 3 "	010	
3 = 1 "	020	
4 = $\frac{2}{9}$	010	

free

Big Press Transfer - loose - no horny cuts  
 like Resin - Cant scratch with finger  
 nail = Edge cut extremely brittle can only cut  
 finest chip without chipping out.



342 E

#3 schedule  
of Extra sealed  
to 234

→ 10 gram Resin  
14 " Alcohol  
6.00 Mltg 6/4  
100 " Benzoin (Base)  
6.00 " of Capsules

1 = 3 tubs 025	} 8/10 wrinkled Very Bad 4 - Crinkled none
2 = Blistered	
3 = tubs 3-010	
4 = Rawad	

6

Transit - Sticks 66" drops - Rest of paper  
Decided  
~~Don't blank~~  
Very thin  
Vc

343 E

No 3 sch  
↓ 4 + bio Schtz  
275

109 grams Resin -  
→ 14 " Alcohol  
600 " Methyl 6/4  
50 " Pyridin Base  
600 " Glycerine -

1 = 2-020	}	1/3 wks	60d
2 = 4-025		1/4 "	"
3 = 2-020		1/4 "	"
4 None		1/3rd	"

Tranfes stick 2 6" long Red Edge  
Sensitizeth fungus nail - whole veneer  
Comes off - no wood - 2 to 4 flkows  
Dry honey cut on face - Edge hard + strongly  
brittle, chips out - Veneer Very Thin

344 E

#3 schedule  
+ Extra 275

→ 10 grams Reg Resin -  
14 " Alcohol -  
600 " Methyl 6/4  
100 " Ortho-Toluidin  
600 " Glycerin

1 = 2 bits 0.15 } wrapped 3/4 6nd  
2 = 4 0.15 } " 1/3 "  
3 = 5 0.10 } No wrapper  
14

Transfers - (stick very hard) - 5 drops 20"  
Cracked, 100% fused - Can separate with  
finger nail - Edge cut can get fine chip  
but generally friable -

RO

1

2

3

4

5

6

None

Time III<sup>+</sup> III<sup>+</sup> III<sup>+</sup> III<sup>+</sup>  
good III

Surfaces not so good apparently -

345 - F

Req Var - Brushed Blank

Make 24 Blanks 1412

Change blank schedule from  
1000 lbs pressure to

500 lbs - Call for blanks  
within 0.07

Req Print + Transfer 12

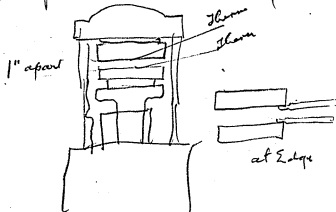
Transfer schedule Print 12

Brushed blank -

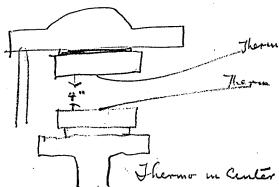
Transferred 12 - 100K 2 pull outs.

12 prints - 7 OK 5 poor prints -

Experiments on Transfer Press in Lab  
working it just as we do on Reg  
Transfer Schedule



Start 2 pin -	Top	bottom
2.3	170	160
2.4	184	182
2.5	206	210
2.6	224	230
2.7	230	242
2.8	240	254
2.9	242	254
2.10	240	262
2.11	240	262
2.12.5	241	264
2.16	244	266
2.19	246	264 -



100 lbs steam

Top	Bottom
300	292
300	294
300	292
300	294

Cooling		
3.05 pm	302	296
3.06 "	264	254
3.07	194	184
3.08	154	156
3.09	114	120
3.10	90	94

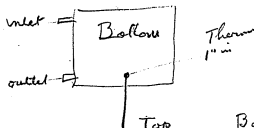
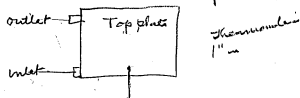
Average 92

Req schedule 3 or 4 blow offs Transfery

	Top	Bottom
3 10 pm -	94	102
3 12	150	152
3 13	198	212
3 14	228	240
3 15 pm	244	256
3 16	252	264
3 17	256	266
3 18	258	268
3 19	260	268
3 20	264	270
3 21	274	282
3 22	285	287
3 23	294	290
3 24	295	291
3 25	296	290
3 26	297	295

16 Minutes

Press Exports Condenser  
Cooling -



	Top	Bottom
4 00 pm	272	277
4 01	244	263
4 02	180	232
4 03	128	194
4 04	110	176
4 05	88	162

74° Difference

Continued. Transf. again  
Thermometer 1" in —

Reading	Top	Bottom
406	94	136
407	140	160
408	178	188
409	214	224
410	236	242
411	248	254
412	258	262
413	262	267
414	264	268
415	264	268
416	267	269
417	266	268
418	268	270
419	269	271
420	268	270
	267	270

Center 296  
1" in 268      28° difference

dishes on drying

346 E

# 3 edict  
Exp sch to 234

10 grams Reg Resin  
14 " Alcohol  
100 mgly Para  
600 " 6/4  
200 " Dry Chloride Calcium

1 = 25-030	}	Loose no wrinkles - flat
2 = 20-030		Loose " "
3 = 22-020		" " "
4 = 22-020		" Slight wrink "

89

Transfers done - Cut face no honey  
scandily brittle no signs of honey  
Can't scratch with finger nail  
Edge Cut no chip too hard - These Chlorides  
seem to prevent gel Condensation - No weld  
P.E. near late off no part of blank - bubble  
don't show on surface except microscopic pits



Dishes on drying

347 E

#3 Schedule  
of Extra Sch Co  
233

10 gram Reg Resin

14 " alcohol

100 mg para

600 " 6/4

400 " Dry Calcium Chloride

1 = 5	bats	020	}	some wrinkles fairly loose
2 = 3	"	010		no wrinkles lifted - all loose
3 = 3	"	010		lifted - but loose no wrinkles
4 = 5	"	020		slight wrinkles lifted - loose

16

Dishes on drying

348 E

#3 Schedule  
+ Extra schy<sup>to</sup>  
23<sup>4</sup>

10 gram Reg Resin

14 " Alcohol

100 Mlg Para

600 " 6/4

800 " Dry Chloro. & Colocum

- 1 = 2 - 015 } free slight wrink  
2 = 6 micra } free circular wrinkles  
3 = 5 " } pentroid left circular "  
4 = 5 - 010 } circular w/ks - part free -  
This lot dont look promising -  
18

349 E

#3 Adh  
Extra Sols.  
239

10 grms Resin  
14 " Alcohol  
100 mgly Para  
600 "  $E/4$   
200 " Chloride Zinc Solid

1 = 20 but 015 } no wrinkles  
2 = 20 " 030 } ~~no wrinkles~~ lifts 3  
3 = 20 " 020 } " " lifts 3  
4 = 20 " 020 } " " lifts 7

This is fair looking - Condensed very hard  
200 Chl Zn is Too much - probably  
20 will do the business - its a rapid  
Condenser & Unk - promising for  
Experiment - Phenomenon of Clts  
harder on bottom than on top only  
where there is a lift =

Transfer - stick - big pull out - break & break with it  
face cut slightly honey but to like  
Edge can take a very slight honey chip - Chips out  
a Semi Condensator or Resin Comb -

350 E

#3 Lab

4 Epsom Salt  
275

10 grms Resin

14 " alcohol

100 Mils Para

600 " 6/4

400 " Dry Chloride Zinc

1 = 14-020	no wrinkles - Matte
2 = 15-025 200	" " " 1 " "
3 = 4-020-100	" " " 3 " "
4 = 8-020 50	" " " 7 " "

Condensed <sup>41</sup> very hard -

Transfer - loose - Cracked - scratches easy  
with finger nail - Little Edge Resin, no signs of  
honey - Welds perfect. Can it be ZnCl kills 4/4  
or is it over condensed -

351 E

~~10 grams Reg. Phos~~

~~14 " Alcohol~~

~~100 Med. Pina~~

~~600 " 6/4~~

~~400 " Dry Chloride Zinc~~

~~Dup of 350 E~~

4/15/35<sup>2</sup> All Over No 3 schedule  
352 E Additional " 4 1/2 lbs  
2 3/4

10 grams Reg Protein  
14 " Alcohol  
100 Mily Peoria  
600 " 6/4  
800 " Dry Chloride Zinc

All Cooked up frable -

# PHENOMENON

Note 319 - This shows that on a hard blank the Weld Varnish is NOT Condensed at all not even rubbery in the transfer press -

A special Varnish must be got with 6/4 + perhaps glycerine to get rapid rubber Condensation

319E cracked around Edges + the Weld Var flowed out over transfer on 2 or 3 print the smooth part covered with it -  
Cant say if it causes cracks

The Var Must Condense in 10 min  
+ Blank dried so alcohol off otherwise it will not condense in 10 minutes

Req Weld Var is Req 7.9 6/4  
1/4 Para No Sandoz or Negroamine  
5% Lampblack

## Phenomenon

Takes a very long time to Condense without Para almost impracticable to get along without it,

I notice on Brass Only that red wrinkles appear on face of plate - also these are in direction of the wind from a small blower -

Nickel Don't do it - you do not but faintly

Possibly it may be the Copper of the Parax acts as a Catalyst to Oxidize something in the Resin -

There is no Para in the Varnish I used -

Transfer - G - 50K 1 ckd Vary (Edges) + Bluffs

RO  
1  
2  
3  
4 - III  
5 III  
6 II  
None III

Finetti IIII  
good

1 side four other parallel to cks in main edge face  
1 side cks " side " cks in smooth part of face  
1 margin cks " " cks - poor print " not good  
1 main margin cks backside - fair  
1 Round feed lunch small bad margins  
1 " " only bad Schwanke edge - smooth 1/4" parallel in main

Pretty fair

Never will be able to print until transfer  
turned

Morris & Hoffman

353 E 70 plates.

100 Rag 16% Resin only  
6% 6/4  
1 1/2% Para  
4% glycerine

No Sandrac or Negrosine

Use Rag oven schedule

Transfer 6  
Print 6

1412 blanks brushed

Oven report - 71 plates, 5 large bubbles  
insertion - 66 seconds of which 40 bubbles insert  
21 Bubbles + Wrinkles 5 1/2 5 bubbles patches

Transfer - 1 - free OK  
2 - " OK  
3 - " OK  
4 - " OK  
5 - " OK  
6 - " OK  
1 - 6" OK  
1 - 3" OK  
2 - 3" OK  
Free OK  
4" OK  
1 - 3" pull-out



After Buffing Transfer support  
 6 Transfer 4 OK 1 CKD Van 1 mechanical

RO  $\begin{matrix} \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \end{matrix}$   $\begin{matrix} \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \end{matrix}$   $\begin{matrix} \text{v} \\ \text{v} \\ \text{v} \\ \text{v} \\ \text{v} \end{matrix}$   
 good

None  $\begin{matrix} \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \\ \text{v} & \text{v} & \text{v} & \text{v} & \text{v} \end{matrix}$

Inspects of Prints

- 1 = Parallel edge + 2 in margin
- 2 = feed line -
- 1 = feed line
- 2 = margin -
- 1 = parallel to form in margin - smooth side
- 2 = feed line -
- 1 - smooth side of feed line
- 2 - smooth side parallel to 1" in from edge
- 1 = Record side margin + feed line -
- 2 = single copy margin -
- 1 = Record side feed line + margin
- 2 = smooth parallel to 1" in -

Transfer support after Buffing  
 4 OK

354E

Moore & Hoffman  
 70 Plates

100 Reg 16% Kisin only  
 6 1/4% 6/4  
 1% para  
 4% glycerine

No Sandrase or Negrosin  
 Use Reg over schedule

Transfer + Print 6  
 on 1412 6 plates brushed

OVER 76 plates 73 good - 2 ckd 1 miswed  
 of the OK 40 Buble + Unwed - 33 Buble + Unwed

transfer	1 - free OK	1 loose OK
No X + XXX	1 " OK	1 2" OK
only 2 han	1 " OK	1 2" OK
bad run edges	1 " OK	1 2" OK
scrapped high	1 " OK	1 free OK
out	1 " OK	1 free OK

Edges & Beveled Transfers  
6 2OK 2 Cooked Center 2 chd Var

RO  
1 fine - ~~||||~~ ~~||||~~ ||  
2 good

3  
4  
5

6 ||||

non-~~||||~~ ||

Cracks in Muroc ||||

Fair print ||||

No cracks in Muroc ||||

Fair Var - ~~||~~ Think would be  
OK if had even Transfers

355E

Woods & Hoffmann

70 Plates

100 Reg 16% Resin Only

6 1/2% 6/4

1% Para

4% glycerine -

No Sandrac or neoprene

Use Reg oven schedule

Transfer & Print 6

on 1412 blanks (smoked)

Over 63- 18 large bubbles - 2 small & open  
42OK of which 34B Bubbles & Wrinkled  
& Bubbles & Uneven

Transfers to press OK	free OK	free OK	60°P
Cuts 6/16, shade 2	" Cooked Center	1-1/2" " OK	
more heavy 3	" " "	" " " OK	
4	free OK	free OK	
5	free OK	free OK	
6	free OK	1-2" chd left	

Transfer Buff - 6 Transfer 5 OK 1 Cooled Center

RO fine HFF IIII Y  
1  
2 good  
3  
4  
5 I  
6 HFF  
None IIII

Surface poorer  
the greater the  
6/4 -

- 1 Rec feed line clear Mangan from some extreme edge clear
- 2 plain some single extreme Mangan edge clear -
- 1 Rec feed line + mangan both sides blank gears away from
- 2 plain - Mangan clear + 2 parallel clear long in run
- 1 Rec one place extreme edge fine parallel clear good
- 2 plain several places - groups of 6 1/2 parallel clear music
- 1 Rec feed line - mangan; about one good
- 2 Rec " fine " good
- 1 Rec Mangan clear + parallel feed line clear
- 2 plain Mangan clear considerable in spots

\* Think 750 pressure it would be OK

This is promising if 750 lbs  
used + blank harder

356 E Mosses + Haffner

70 plates  
100 Reg Resin only  
6 1/2 % 6/4  
1 % Para  
6 % glycerine

No Soudroc or Regresens

Use Reg Oven Schedule

Transfer + Print 6  
on 1412 blank enamel

Oven 72 plates 54 seconds - 13 bubbles  
5 Rained - of 54 runs 214 tubes + unswal  
26 Bubs + wrinkles 47 (caked)

1 =	free OK	Auto grille	1 free OK
2	free OK	Some honey	1 free OK
3	free OK		1 free OK
4	free OK		1 free OK
5	free OK		1 free Coked
6	free OK		free OK

91%

After Buffing & cleaning Transfers  
 report shows 6 Transfers 4 OK 2  
 Varnish Cracked

RO

Five  $\begin{matrix} \vee \\ \vee \\ \vee \\ \vee \\ \vee \end{matrix}$   $\begin{matrix} \vee \\ \vee \\ \vee \\ \vee \\ \vee \end{matrix}$   $\begin{matrix} \vee \\ \vee \\ \vee \\ \vee \\ \vee \end{matrix}$   $\begin{matrix} \vee \\ \vee \\ \vee \\ \vee \\ \vee \end{matrix}$

1

2

3

4

5

6

with

quad

None  $\begin{matrix} \vee \\ \vee \\ \vee \\ \vee \\ \vee \end{matrix}$

	check transfer of		marks in transfer
1 - parallel margin	1 ditto -		marks in transfer
2 - "	"		" " "
3 - "	"		a few parallel in transfer mark in -
4 - "	"		none - in transfer
5 - "	"		" " "
6 - "	"		only but was in transfer

357E Moon & Hoffman

70 plates

100 Reg Resin Only 16%

6 1/2% 6/4

1% Para

10% Glycerine

No Laurene or Negroin

Reg Over schedule

Transfers & print

6 on 1412 blank broken

Over 74 plates - 14 Bubbles - 8 raised

48 seconds - of these 27 bubbles +  
 wrinkled - 16 Bubbles + Unravel  
 5 patches

Stick to plates one side 2

Released freely 4

blanks broken out slightly  
 around 24psi -

358E

10 gram Resin  
16 " Alcohol  
1 gram G/4

200 milg Para

359E

Dup of 358E

Except 200 milg Glycerin added

360 E

2 m Tall oosw

272 E plates that have been thru  
Req Oven Req schedule - 1 bird cage

273 EA. 10 plates dlt's

Schedule - 12.20 pm Cold  
1.00 " 200  
1.40 230  
2.50 250  
3.50 275 - actually 271

Cool.

Both go up to be transferred + Print

all  
273 EA OK Upper rack

272

1 OK

2 OK

3 - small lift OK

4 - 3 lift big "

5 1 lift "

6 OK

7 big lift "

8 lift "

9 "

10 "

lower rack

P.

Conditioned  
Too heavy

lower

361 E

Duplicate of 360.

Except use the bird cages

275 EC +

276 EII

Use same schedule -

362 to 373 Lo to prove if  
6/4 can all be used up so it will  
not harden after record made  
Also to prove if 6/4 hardens the  
Resin - then horny hardens the  
large quantity of phenol.  
+ gives a softer transfer + use  
up all the hardening power

Also if Para in excess will  
carry the 6/4 so it is certainly  
Exhausted of its hardening  
Power

Fix an Oven Schedule  
No 4 Schedule for  
Big Oven recorded in  
7

Hoffman

362E

70 plates

6000

100 Resin

7 1/2 lbs Phenol

8 1/2 6/4

1 1/2 Para

No. 2 or Negrosine

Buffed  
but small

Varnish

(1 - free /  
2 - / drop OK

Milky, Creeps spots - poor body

(1 free OK

Oven

(2 / OK

73 plates 2 bulbs 1 raised

(1 free OK

1 chipped OK 69 -

(2 / 3 jam OK

of the Ok 23 Even 44 wormlike

(1 free OK

2 Patched

(2 5-4" OK

look wormy

(1 free OK

(2 free OK

(1 free OK

(2 free OK

After edging + buffing - 5 OK 1 Cracked

1/2 free 67% OK 90%





364E

70 plates

60cc

100 Resin

9% Friz phenol.

8% G/4

1% Para

No Sandrac or Neoprene  
Transition little worm

- |          |    |                                   |
|----------|----|-----------------------------------|
| (1) Friz | OK | Yarnish                           |
| (2) Friz | OK | Crepe - Marbled spots, poor body  |
| (1) 1"   | OK | <u>Green</u>                      |
| (2) 1"   | OK | 78 plain 11 Buba 1 out            |
| (1) Friz | OK | 66 OK of which 24 even 38 rounded |
| (2) Friz | OK | 4 unrun good                      |
| (1) Friz | OK | all look wormy                    |
| (2) 2-4" | OK |                                   |
| (1) Friz | OK |                                   |
| (2) Friz | OK |                                   |
| (1) Friz | OK |                                   |
| (2) Friz | OK |                                   |

Inspection after Edging + Buffing

1 Edge cracks - 5 OK -

TTTT

1/2 friz 40% OK 100%

365E

70

6000

100 Resin

10% free phenol

no Simtrac or  
Neprorene

8% 6/4

1% Para

Transfer to 60 mm. <sup>stuffed</sup>

(1 Free OK

(2 2/3 OK

(1 1/4 OK

(2 4 10" PO—

(1 Free OK

(2 1/2 PO—

(1-14" OK

(2 2-4" OK

(1-1-2" OK

(2 3-4" OK

(1 free OK

(2 1/2 OK

Vanish

Mottle-Orespo, Spoken poor boy

Oven

79 plates 18 Buffles—

61 OK of which 20 even

26 wrinkled 7 Palated

8 Unseen

after Edgwayt buffing

OK OK - poor. Unseen

OK OK

OK OK

OK OK

OK OK

OK 1" Long radiused OK

1/2 free - 16% OK 83%

- ~~1 ok round  
ok~~
- 1 ok  
ok
- 2 ok
- 3 ok
- 4 ok ok | ok
- 5 ok | ok | ok | ok
- 6 ok

[ITEM(S) FOUND IN BOOK]

Size	Rein	Para	Plasti	Buto	OK	Wid	Ums	Err	%	T	Wann	PO	End	
										Tabu	TEK			
1/2	"	1 1/2	70	11	59	36	4	19	75	6	0	6		
1/2	"	1 1/2	67	6	61	37	3	21	91					
1/2	"	1 1/2	65	9	56	53	-	3	86					
1/2	"	1 1/2	71	5	66	39	8	19	93					
1/2	"	1 1/2	66	-	59	38	5	16	89					
1/2	"	1 1/2	67	8	59	19	18	22	88					
1/2	"	1 1/2	68	-	58	16	34	9	85					
1/2	Reguler	1	69	30	39	30	5	4	56	6	9	0	12	0
1/2	"	1	74	34	40	33	2	5	54	6	9	0	11	1
1/2	"	1	69	18	50	31	19	-	72	6	9	0	12	0
7	"	1	74	30	44	32	6	6	60	6	9	3	0	1
1/2	"	1	68	21	44	32	8	6	67					
1/2	"	1	71	24	47	38	3	6	66					
1/2	"	1	72	5	64	40	17	9	92					
1/2	"	1	73	16	51	20	26	11	70					
6 1/2	Reguler	1 1/2	69	11	57	3	42	12	82	6	7	6	0	1
6	"	1 1/2	73	11	62	18	38	6	85					
5 1/2	"	1 1/2	71	17	54	26	8	20	76					
5 1/2	"	1 1/2	76	13	62	46	13	3	82					

Bottle diminish as G4 diminishes

OK Plates Requir 87 1/2 bules per .57  
Regular 71.83 " 19.

**Notebook Series -- Notebooks by Edison and Other Experimenters  
Disc Record Book No. 7  
Notebook, N-16-02-25**

This notebook was used by Edison in February 1916 for notes on the composition of disc record blanks and the application of varnish surfaces during the transfer and printing process. Included are notes describing a sequence of experiments numbered from 374E to 430E. The entries indicate results obtained from varying the proportions of ingredients in the varnish surfaces or the oven baking schedules for the disc records. The summary of results usually provides a tally of acceptable and unacceptable record surfaces, transfers, and prints obtained. Also included are experiments involving attempts to reduce bubbles and wrinkles on record surfaces. Some notes are in the form of instructions to Sherwood T. (Sam) Moore or other employees. One additional page of notes has been taped into book, and several items by Edison, including a table summarizing the results of experiments 387E-409E, have been inserted loose into the book. The front cover is labeled "Disc 7." The pages are unnumbered. Approximately 100 pages have been used.

Silver Lake has lead

$\frac{3}{16}$  —

$\frac{5}{16}$  —

$\frac{1}{8}$  —

$\frac{1}{2}$

*Wm. C. C. Co.,*


MANUFACTURERS,

12 JOHN ST.

AND

19 PLATT ST.

NEW YORK.

Edge blank not crushed - perfect one  
a little rounded 

The pressure of transfer entirely too much  
Varnish flowed in 1 1/2 minutes, think  
100 to 200 lbs will do -



polish gone wide varnish  
flowed out at B -  
Var very uneven -  
Thorough surface X is

entirely due to excess Var. This must be  
topped

Prints, 4 - 3 OK, 1 big bubble -

1 Re-inspection (see line etc to margin etc)  
= otherwise showing well would be both of var even

2 gabbled Var giving margin + field etc -

3 2 1/2 etc small side in margin - margin etc  
other side margin OK best & only one, so far  
in all tested in the various Expts

4 - no etc small side - margin etc  
margin side only margin etc due to uneven Var

This shows turned Var will  
make prints OK -

~~362~~ 374 EX

Moore to get 24 flat plates

fix 6 mould holders to

try flat plate transfers +  
used 404 E Varnish

print

(1) - free OK  
(2) - free OK

(1) - free OK  
(2) - free OK

(1) - free OK  
(2) - free OK

(1) - free OK  
(2) - free OK

(1) - free OK  
(2) - free OK

Warm plate

(1) free OK  
(2) free OK  
OK that funny deep  
edges etc may  
be due to uneven Var

all 4 OK

4 - 3 OK - 1 big bubble

good edges -

14126 ax

374 EX

~~365~~ - turn down 12 Var plates

No edge only 10/1000 above  
level instead of 32/1000



Frederick -

364E

376E

10 Resin

14 Alcohol

625 Mily 6/4

100 " " Pan

10 " Zinc Chloride

fine but 21 on 4 - 032 left  
all free

276 to 286 - not promising

Except 382 -

Zn Chloride is NG

~~365 E~~

377 E

10 Resin

14 Alcohol

625 milg 6/4

20 " Zinc Chloride -

Para left out by  
mistake -

30 or 40 buds on each - lifts -

all free ng

~~366E~~

378E

10 Resin

14 Alcohol

625 M. l. g. e/4

100 " Para

30 " Zinc Chloride

8 bubbles on all 4 ozs  
all from

~~367 F~~

376 E

10 Resin

14 Alcohol

625 Mily 6/4

100 " para

50 " Zinc Chloride

All for 2 20 but on all 020  
s

~~360 E~~

380 E

10 Resin

14 Alcohol

625 wily 6/4

100 pages

100 Zinc Chloride -

50 tabs on each plate

2 left 2 rest <sup>now</sup> ~~rest~~ + 1/2

~~369E~~

381E

10 Resin

14 Alcohol

625 Mily 6/4

100 " Para

125 " Zinc chloride -

Lifts on all - 50 bubbles  
Each plate - 1 for 1

2-21-16

Big Oven schedule No 4 =

20	mnto	115	
20	"	125	
30	"	130	
60	"	140	
100	"	150	} Dangerous for bubbles
80	"	155	
60	"	160	
40	"	165	
40	"	170	
30	"	175	
30	"	180	
30	"	185	
30	"	195	
30	"	200	
30	"	210	
30	"	220	
30	"	230	
30	"	235	
60	"	Hold 235 -	

~~3706~~  
382E

10 grams Res. Resin

14 " Alcohol

625 mlq 6/4 -

100 " Pava

20 " Zinc Chl

1 gram Glycerine

good - not freeze - only 2 or 3  
bubs on each 015-



~~371E~~  
383E

10 grams Resin  
14 " Alcohol

625 mlq G/A

100 " Para

30 " Zinc Chl

1 gram glycerum

Very few bubbles -

All have lefts

2 frogs

~~372E~~

384E

10 gram Res. Resin

14 " Alcohol

625 Wdg 6/4

100 " Para

50 " Zinc Chl

1 gram glycerine

10 cuts on each

1 left of one others 3 no  
lefts but for 2

345 E

385 E

10 grams Resin  
14 " alcohol

625 Mlg G/4

100 " Para

100 " Zinc chloride

1 gram glycerine

2 left from

2 no left from

6 butts on each 015

~~374 E~~

386 E

10 grams Resin

14 " Alcohol

625 milg G/H

100 " Para

125 " Zinc Chl

1 gram glycerine -

All from all lifted

8 to 10 015 on each

~~375E~~  
~~387E~~

Phenol Series -

All this series



First Inspection

Average % Free release 53%

Average % OK 75.8%

First inspection  
Defects in free releases 7  
" " Stuck plates 9  
Free Phenol

Look the 6/4 next the Para  
near the furnace

Moral To cure bubbles diminish  
free phenol if this don't do enough  
increase the Para, - if this is not  
enough slow oven schedule between  
140 to 165° Fahr

Para makes uneven plates  
Matrix free phenol makes uneven plates

362E to 373E Series

Free releases don't depend on variations phenol  
on Para - ?

Haffman

366E

70 plates -

100 Resin

7% Phenol

8% 6/4

3% Para

No 4 a chloride  
60cc

No 5 under  
or 11.9 gram  
varnish

(1 free PO <sup>right</sup>  
2 3-4" OK cut)

(1 1-2" PO  
2 1-2" OK

(1 free OK  
2 / OK

(1 free PO <sup>cut</sup>  
2 free OK

(1 free OK  
2 free OK

(1 free OK  
2 / OK at Edge

matts, Crisp, apoin, fair body  
Oven

70 Plates 2 Subs, 5 raved  
15 int 62 OK of which  
3 even 48 wrinkled 9 uneven

2 Plates  
% free 62% OK 62%

Inspection after buffing & Edging  
OK - Bad wrinkled  
OK OK  
OK OK  
OK OK  
OK OK

367 E Hoffman  
70 plates

100 Raisin  
8% Phloral  
8% 6/4  
3% Passa

60 cc

no succinic or  
heptan

Vanish

Malted, Cresps, Spoken  
four body  
Cyan

- (1 free OK
- (2 free OK
- (1 free OK
- (2 / OK
- (1 free OK <sup>margin</sup>
- (2 free OK <sub>left</sub>
- (1 free OK
- (2 free OK
- (1 free OK
- (2 free OK
- (1 free OK
- (2 free OK

70 plates 1 Band OK 69 of sheet  
16 even 44 wrinkled & uneven  
look wormy

Examine after edging & buffing  
OK OK for Cornale  
OK OK " "  
OK OK " "  
OK OK ceded left in quantity  
OK OK " "

20 free 88% OK 90%

368E

Huffman

70 plates

100 Pieces

9% phenol

60 cc

8% Gft

No Sand or liquid

3% Para

Warm

(1 Free OK  
2 1 4" OK

Vanish

Mottled, Creeps, Spokes fair 6m2  
Oven

(1 Free OK  
2 2-4" OK

70 plates 12 bottles 3 Range

(1 Free OK  
2 2-4" OK

550K of which 7 even

48 wrinkled

(1 Free OK  
2 1 4" OK

dark coating

(1 Free OK  
2 4 6" OK

(1 Free Bird  
2 10 of 20" OK

worst have seen thick

3/4 free, 50% OK, 90%

Re inspection after Edging + touffing

OK 1 Cracked Van

Radial

also same face





369E

Hoffman  
70 plates

100 Run

10 platen

8 1/2 Gff

3 1/2 P or a

Leoc

No Sand or Kaps

plates rather warm

Warmth

Mottled, Creeps, spoking fair bad

Over

74 plates 2 Bubs

71 OK plates of which

3 Even 51 wrinkled 11 uneven

All look wormy

Inspection after Edging + Buffing

(1 tree OK

(2 2-4" OK

(1 1-2" OK

(2 2-4" OK

(1 2-4" OK

(2 3-4" OK

(1 tree OK

(2 tree OK

(1 tree OK

(2 1-2" OK

(1 tree OK

(2 / OK

1/2 tree 40% OK 100%

Hoffman  
370E 70 plates

100 P/B in

7% pieced 60cc

4 1/2 6/4

No Sand or Regs

3% P/B in

(1 free OK  
2 free OK

Varnish  
good body-surface clear  
does not creep - OK

(1 free OK  
2 free OK

Plating gone  
P/B 90% Van  
Vatted Mechanics

Oven

(1 free OK  
2 free OK

70 plates 2 raised 68 OK  
of which 4 Even 55 wrinkles  
uneven 2 Patched  
All look wormy

(1 free OK  
2 free OK

(1 free OK  
2 free OK

(1 free OK  
2 free OK

Thick gob Van used X

(1 free OK  
2 free OK

1/2 free 90% OK 90% -

Inspection after Buff & Edge -

OK | OK X gob varnish on Edge

OK OK " " " "

OK OK .XX " " " "

OK OK .XXX " " " "

Bad one gob var -

OK OK



Very ruff

" small or finer grain

371E

Hoffman

70 plates

100 Resin

60cc

8% phenal

7 1/2 6/4

3% Para

No Sand or Reg

(1 free OK

(2 free OK

(1 free OK

(2 free OK

(1 free OK

(2 free OK

(1 1-2" OK

(2 1-2" OK

(1 free OK

(2 free OK

(1 1-4" Bind-pulls

(2 free OK

Varnish  
good body - good surface  
plates even. don't chip or  
break

Oven

70 plates OK -  
of these 5 even 12 uneven  
5B wrinkled  
look wormy -

1/2 free 75% OK 90%

After Edging & Buffing 1 Pull out 2 Cracked double  
Cracks are squashed van by flowing & not true  
Cracks - 3OK -

342E

70 plates

100 Resin

9% phenol

60cc

7 1/2% Gft

3% Para

NO Sand or Kleg

- (1 free OK
- (2 free OK
- (1 free OK
- (2 2-2" OK
- (1 free OK
- (2 1-6" Crack-
- (1 free OK
- (2 3-6" Pull out

good body - good surface  
thin streaks

OVEN

70 plates 4 Bubs 1 raised  
1 injured 64 OK of  
which 3 even 53 w/inkles  
5 uneven 3 palatal  
All look wormy

- (1 free OK
- (2 free OK
- (1 free OK
- (2 free OK

after Edging + Buffing

OK	OK
OK	OK
OK	OK
OK	OK
OK	OK
OK	OK
OK	OK

1/2 free 67% OK 83%

373E 70 plates  
60 cc

60 Rain  
10 phenol

4 1/2 6/4

3/4 Para

(1 free OK

OK

(2 free Pull out

OK

(1 1-2" OK

OK

(2 1-2" Redspot 1/2

OK

(1 1-2" Pull out

Bin

(2 3-6" OK

OK

(1 free OK

OK

(2 free OK

OK

3/4 free 50% OK 67%

Varnish

Good body clear surfaces  
Works Fine

Oven

70 Plates 1 Bub 1 rained,  
1 injured 67 OK of which

5 even 42 wrinkled

20 uneven

All look waxy

After Edging + Buffing

OK OK for cracks

OK OK " "

OK OK " "

OK OK " "

OK OK " "

OK 1 Red Ckd, "

RO 4 fine ~~||||~~ ~~||||~~ 45cc -  
2 good |||

4  
5 ||||  
6 ||||  
None ||||

1 Record pour percent several Cray angle 45° smooth  
2 Smooth band plane at Edge

1 - Record - percent - feed line Cray  
2 Record also - feed line Cray

1 Record - feed line Cray  
2 Smooth parallel Cray

1 - Record - feed line Cray - several lines  
2 Smooth parallel Cray margin -

1 Record - margin Cray  
Smooth few margin Cray -

1 Record - feed line Cray - margin Cray  
2 Smooth - Margin Cray -

Prints

374 ✓ Use Reg Var plates -  
12 - 1412 blanks -

Transfer and increase time  
from 15 minutes schedule to  
30 minutes schedule

+ Percent 6.

Reg Varnish - Transferred 12 all -  
free release  
after 11/16 transfer - 12 110K 1 ckd Var.

{1 Smooth angle 45 nearly to music not poor print  
{2 parallel Grocks Margin - pretty fair but poor print

{1 neither a poor print - Extreme Edge Margin Coats  
{2 " " " " " " only margin Coats Extreme Edge

{2 Both only have Extreme Margin Coats not poor print

{1 Record OK

{2 Smooth 2 small checks in Margin

{1 Record OK but poor print

{2 Smooth print OK

{1 Record poor print for line crop

{2 only Extreme Margin Coats

This looks as if we want  
with 60cc 750 lbs instead  
of 1000 - or perhaps 500 lbs

375

Print the other 6 of 374  
on 700 lbs presser in  
Print Press This is 30 minutes  
held in Transfer press -

R6 Fine III III  
2 good III  
3  
4 I  
5 I  
6 III  
row III III

45cc

1/2 Ave of Glycerine leaving  
 - out 15% is for all the faces  
 85.6% OK - This net for  
 Records -

Record for all the phenol  
 series faces -  
 86.2%

after net ~~Records~~ Transfers  
 66.6 are OK -

Plate%	4% gly	85.1% OK plates
6	"	85.6% " "
10	"	87% " "
15	"	94 " "

OK Transfers ready to print	7 faces
4% gly	79.1% 89.6
6 " "	75 83.3
10 " "	64 91.6
15 " "	64 79.1

387E

Hoffman

70 Plates 60cc

100 Req Resin

6% 9/4

1% Para

4% Glycerine

Transf on 1412 Blanks brushed

(1 free OK

(2) OK

(1 1-3" OK

(2 2-3" - Pull out small

(1 free OK

(2 1-3" OK

(1 free OK

(2 1-2" OK

(1 free OK

(2 free OK

(1 free OK

(2 free small pull out

1/2 free release 70%

OK 83%

3/4 Record list Dupl. OK

C.M.S. - Varnish

Over -  
 71 Plates 15 cuts 10 runs  
 55 OK - 12 runs 26 unrun  
 16 unrun 1 padch

2uffed - Edge 3  
 6 = 2 pull outs 1 ok Vn



388 E 70 Plates 60cc

100 Reg Resin

6% 6/4

1% Para

6% Glycerine

Transfer on 1412 brushed blank

(1 free OK  
2 / OK

(1 free OK  
2 free OK

(1 free OK  
2 / OK

(1 1-2" OK  
2 1-2" OK

(1 free OK  
2 1-2" OK

(1 free OK  
2 free OK

1/2 free evidence 70%  
OK 100%

1st & 2nd Inspection - 6 OK

C m Varnish

Oven

41 plates - 9 plates  
61 OK 18 film 26 cm film

16 unrolled 1 Plate

Build 2.4yd  
6 - 60K

389 E 70 plates 60cc

100 Res Resin

6% 6/4

1% Para

10% Glycerine

Transfer on 14 1/2 brushed blanks

(1 1-2" OK  
2 5-15" Pull out

Varnish  
C, M, S —

(1 free OK  
2 free OK

Oven  
72 plates 9 bulbs 4 round  
39 OK 15 even 20 un even  
22 work 2 plates —

(1 1-2" OK  
2 6-15" OK

(1 free OK  
2 free OK

Paint (Edges)  
6-4 OK 1 pull out 1  
mechanical-chipped center

(1 free OK  
2 1-2-10 OK GS

(1 free OK  
2 free OK steel

1/2 free release 70%  
OK 90%

390 E 70 plates 60cc

100 Req Resin

6% 6/4

1% Para

15% Glycerine

Transfer on 1412 brushed blanks

(1 1-2" OK SK

(2 3-10" Pullout skid SK

(1 1-2" OK SK

(2 1-2" Pullout SK SK

(1 4" OK SK

(2 free OK SK

(1 free OK SK

(2 / OK SK

(1 1-2" OK SK

(2 2-3" OK SK

(1 2-4" OK SK

(2 3-8" OK SK

1/2 free release 25%

OK 53%

Varnish  
Creep, M, S -

Over

73 plates 2 runs 2 dust  
1 Sample - 68 OK 14 runs  
35 carbon 2 plates 17 runs

Buffed & Edged 6-4 OK  
2 pull outs -

Wash

391 E 70 Plates 60 cc  
100 Req Resin  
6 1/4% 6/4  
1% Para.  
4% Glycerine

Transfer on 1412 brushed Blange

(1 free	OK	GS	Varnish
(2 free	OK	GS	Croops M Sp-ker
(1 free	OK	GS	
(2 free	OK	S	75 plates 2 burr 4 raised
(1 1-2	OK	S	69 OK 9 even 21 uneven
(2 2-5" <small>bin</small>	—	S	3 patch 36 corners
(1 free	OK	GS	(Buffed) + 2 a qd
(2 free	OK	S	6 - 4OK 1 pull out 1 chd
(1 free	OK	S	
(2 1-2"	OK	S	
(1 free	OK	GS	
(2 free	OK	S	
1/2 free silicone	OK	75%	
	OK	90%	

392 E 70 plates 60cc

100 Resin

6 1/4% 6/4

1% Para

6% Glycerine

(1 free	pull out	5	Varnish Cresol K.C.C. - Sp. Resin
(2 free	pull out	5	
(1 free	OK	GS	Green
(2 free	Pull out	5	
(1 free	OK	GS	40 OK remove 3 bebs 2 Remov 1 dirt. 63 OK & even 31 unrem 23 unrem 1 patch
(2 free	OK	5	
(1 free	OK	GS	Buffed & Edged
(2 free	OK	GS	
(1 free	OK	GS	6-40K 1 Pull out 1 B'nd
(2 free	OK	5	
(1 free	OK	GS	
(2 free	OK	5	

% free release 90% nearly 100% only  
OK 75%

393E 70 Plates 6acc

100 Req Resin

6 1/4 6/4

1% Para

10% Glycerine

Transfer on 1412 brushed blanks

(1 free	OK	S	Creeps Varnish Mottled Spots
2 3-5"	OK	S	
(1 1-2"	OK	S	
2 4-6"	OK	S	
(1 2-4"	OK	S	
2 4-4"	small pa	S	
(1 free	OK	S	
2 /	pull out	S	
(1 free	OK	S	
2 free	OK	S	
(1 free	OK	GS	
2 4-6"	OK	GS	
% free release		40%	
		OK 83%	

OVER  
74 plates 5 buds 5 rows  
1 unwin 63 OK - 8 row  
16 unwin 3 patch 36 unwin

(Buffed + Edge)  
6 - 4 OK - 1 pull out 1 Bud

10% Artificial Camphor

~~10%~~ 2 1/2% Ditham Para -

bubbles on 3/4" glass - sets about 10 min  
bubbles somewhat, bubbles bad on plate  
Don't think its any good. Sets plate -

10% Trichlorophenol

5% Ditham Para set very quick

1/3rd the time of all the others

scarcely any bubbles if done  
shade slower would be none  
after set hard on 3/4" glass 7 small CC's  
coming off - This works by far  
better than any so far -

if put on plate too quick it puffs in  
several places (but not bad)

comes off easy on the plate

Think it good -

394 E 70 plates 60cc

100 Resin

6 1/4 6/4

1 1/2 Para

15% Glycerine

Transfer to 1412 Brushed 6-lanks

(1 free OK

split po

S

(2 1-2" OK

OK

S

(2 2-2" OK

OK

S

(1 free OK

OK

S

(2 free OK

OK

S

(1 free OK

OK

S

(2 3-6" pullout

pullout

S

(1 3-3" pullout

pullout

S

(2 4-3 pullout

pullout

S

% free release

OK

Varnish  
Cresco Mottles 2 plates -

Oven

74 plates 2.600  
1 chip 69 OK  
actual 14 sum  
9 plates 89 OK  
4 unworked

Beuffel Edge  
6 - 2 po 1 OK Vard

60%

67%



Glycerin Vari 1412  
+ 250 lbs Transfig

Blank	OK/loss	Re-Matrix	Cracked	Cracked	Orange coat	Long check	Varnish	Commercial	Free	Heat hard	Shrink	g/4	Free	Glycerin
1412 12	5	2	1	0	1	3	387/250	4	11	4	8	6	1	4
1412 5	8	9	0	0	0	1	391/250	2	12	8	4	6 1/4	1	4
1412 11	2	11	0	0	0	1	395/250	4	11	10	3	6 1/4	2	5
1412 13	2	5	-	-	-	1	399/250	5	14	6	4	6 1/2	1/2	5

- 399 - Highest good faces  
 399 - Highest Cornel skins  
 387 - Lowest in Cooked Centers  
 387 - Highest in long check cracks  
 399 - Highest for free release

A. ...

395 E 70 Plates 60cc  
 100 Req Resin  
 6 1/4 6/4  
 2% Para  
 4% Glycerine

Transfer on 1412 brushed blanks

- |         | OK       | GS |
|---------|----------|----|
| (1 free | OK       | GS |
| (2 2-5" | OK       | GS |
| (1 free | OK       | S  |
| (2 /    | OK       | S  |
| (1 free | OK       | GS |
| (2 /    | pull out | S  |
| (1 free | OK       | GS |
| (2 free | OK       | S  |
| (1 free | OK       | S  |
| (2 /    | OK       | GS |
| (1 free | OK       | S  |
| (2 3-6" | OK       | GS |

1/2 free release OK 60%  
 OK 90%

Varnish  
 Crepe Hatched photo

Overman  
 75 plates 2 hrs 40 mins 2 dent  
 67 OK 3 min 2 patch 18 min  
 54 commercial

Buffed & Edged 6-5 OK  
 1 pull out,

396 E 70 plates 60cc

100 Req Resum

6 1/4 6/4

2% Para

6% Glycine

Transfer on 1412 brushed blanks

- |                                 |   |
|---------------------------------|---|
| (1 free OK S                    | Crespe Matted - Sp. also  |
| (2 / putouts redmg S            |   |
| (1 3-6" OK S                    | Oven  |
| (2 6-12" OK S                   |   |
| (1 1-2" Red mg <sup>ch</sup> GS | 75 plates 4 cuts 9 raised<br>2 about 600K - 5 Even<br>23 unwar 2 patch 30 unwar |
| (2 1-4" R OK GS                 |   |
| (1 free OK GS                   |   |
| (2 Pres Red mg ch S             |   |
| (1 free OK GS                   |   |
| (2 / small PO. S                |   |
| (1 free red hatic GS            |   |
| (2 / .. appmt S                 |   |
| % free release OK               | 43%<br>50%  |

397 E 70 Plates 60cc  
 100 Req Resin  
 6 $\frac{1}{4}$  6 $\frac{1}{4}$   
 2% Para  
 10% Glycerin

Transfer on 1412 brushed 6lanes

(1 2-4" pull out	S	Creep wall of plates
(2 2-4" OK	S	
(1 2-8" OK	S	Varnish =
(2 7-20" pull out	S	
(1 2-10" OK	S	Oven
(2 1-5" OK	S	
(1 free OK	S	75 plates 4 raised 1 dent
(2 / OK	S	67 OK 5 empty plates
(1 free OK GS	S	2 Patch 28 work 32 unwork
(2 1/2" OK	S	
(1 3-10 Resin OK	S	
(2 1-10 OK	S	

16%  
 75%  
 % free release OK

398 E 70 Plates 60cc

100 Req Resin

6 1/4

6/4

2%

Para

15%

Glycerin

Transfer on 1412 brushed blanks

(1 /	OK	5	Crisp Matted - Spokes <sup>Varnish</sup>
(2 2-10"	OK	5	
(1 1-2"	OK	GS	Oven
(2 3-10"	OK	GS	
(1 3-8"	OK	5	75 Plates 6 Buto 3 raised 1 But 65 OK 19 Even
(2 2-8" pull out	5		
(1 1-2" pull out	5		3 Pallets 5 commuted 38 unswan
(2 10-20" comb	5		
(1 2-4"	OK	5	
(2 1-4"	OK	5	
(1 2-4"	OK	5	
(2 3-6"	OK	5	

% of free releases / None  
OK 75%

399 E

70 Plates 60cc

100 Req Resin  
6 1/4 6/4  
1/2 % Para  
4 % Glycerin

Transfer on 1412 brushed blanks

- (1 free OK S
- (2 2-4 OK S
- (1 free OK S
- (2 free OK S
- (1 free OK S
- (2 free OK S
- (1 free OK S
- (2 2-6 OK S
- (1 free OK S
- (2 free OK S

Varunish  
Creep Kallu - Spiker

~~Over~~  
74 plates 3 bubbles 9 rows  
62 OK 4 sm 32 wires 3 plates  
23 unrolled all have fine  
bubbles -

(1 pullout 6-30K  
1 pullout 2 chd Vap  
1 in answer a left chd

1/2 free releases 75%  
OK 90%

400 E

70 plates 60cc

100 Resin

6 1/4 6/4

1/2 % Para

6% Glycerin

Transfer to 1412 brushed blank

Yarnish

(1 free OK S

(2 1-2" OK S

(1 free OK S

(2 1-2" OK S

(1 free OK S

(2 1-3" OK GS

(1 free OK S

(2 1-6" OK S

(1 free OK S

(2 2-4" OK S

(1 free OK S

(2 1-2" OK S

Mello-Creep-Spaker

Over

75 plates 8 bulbs - Raised 9  
1 injured - 57 OK & one 31 unim 17 unim  
1 patch final unim in all

Reid T Edged

6 - 5OK 1 chd var

Free releases 50%

OK 100%

401E

70 Plates. 6000

100 Resin

6 1/4% 6/4

1/2% Para

10% Glycerin

Transfer on 1412 brushed plates

Varnish

(1 1/2 OK 5

(2 1-6 Pullout 5

(1 1-2" OK 5

(2 1-2" OK 5

(1 free OK 5

(2 / OK 5

(1 free OK 5

(2 / Woulfing 5

(1 free OK 5

(2 2-4" " 5

(1 free Reming 5

(2 / OK 5

Mallet Grips - Spikes

Oven

74 plates, 3 tubes 20 used

2 unused 1 short

66 OK ahead 13 even

38 unused 12 wound

3 patches

402 E 70 plates 60cc

100 Resin

6 1/4 %

6/4

1/2 %

Para

15 %

Glycerin

Transfer on 1412 brushed Blamx

Varnish

(1 2-4 OK S

2 2-4 Pull out S

(1 free OK S

(2 2-5" OK S

(1 free OK S

(2 free OK S

(1 free OK S

(2 2-4" pull out S

free 79%

OK 93

Creeps - 11 killed - 50 plates

Over

75 plates 1 raised 1 dent

73 OK of which 19 even

23 uneven 7 patched 24 work



Plates	Beats	Recess	Chk	Chip	Trays	Dirt	Accept	OK	Req	60 cc
255	13	59	13	7	2		1	190	95	66.6
				Req	45 cc					
420	43	60	19	6	4	1	287	133	68.3%	

403E

Hoffman Moors

300 plates with  
Req Varnish with the  
Sandrac left out  
note Cracks + % of  
transfers + Prints

404E 70 Plates 60cc

100 Req Resin

6 1/2 %

9/4

1 %

Para

6 %

Glycerin

Transfer to 1412 brushed blank

Transfers to 62 taken apart  
in Chem Lab

(2 free OK) 5

(1-2" OK) 5

(2-5" OK) 5

(1 free OK) 5

(2 / OK) 5

(1-2" OK) 5

(2-4" OK) 5

(1 free OK) 5

(2-5" OK) 5

(1 free OK) 5

(2-4" OK) 5

free 30

OK 83

Varnish

Mottle - surface creeps - spots

Oven

70 plates 5 6 w. 1 dust

68 OK Kefeloch 16 even 3

unseen 45 (checked)

\* Round stain 5 5 5

Moon says every  
pull out has a  
rain around it

405E

70 plates 60cc

100. Resin

6 1/2 4/4

1% Para

10% Glycerin

Varnish

Vis 3-10

(1 1-2" bind-	S	Mottle, Cresps a p r k e
(2 2-4" bind-	S	
(1 1-2" OK	S	Oven
(2 1-4" OK	S	
(1 free OK	S	75 plates 11 Pans 2 dent
(2 free OK	S	
(1 free OK	S	62 OK of which 8 even
(2 <del>free</del> OK	G-S	
(1 free OK	S	24 unven 2 patch
(2 free OK	G-S	
(1 free OK	G-S	28 Lerrink
(2 free OK	S	
(1 free OK	S	
(2 1-8" OK	S	

Free 70%

OK 83

406E

70 plates 60cc

100 Resin

6 1/2 6/4

1 1/2 Para

15% Glycerine

Vis 3-12

(1 1-2" OK S

(2 2-4" OK S

(1 free OK S

(2 / OK S

(1 free OK S

(2 1-8" Pullout S

(1 free OK S

(2 1-4" OK S

(1 free OK S

(2 1/2" OK S

(1 1-2" OK S

(2 1-4" Pullout S

Varnish  
Matthi, Apoke, CroopOVEN45 plates 1 unoven 1 bubble  
2 raised 71 OK of actual  
4 even 20 unoven 2 patch  
45 correct

404E 70 plates 6000

100 Resin  
6 1/2 g/4

2 para

6% Glycerin

(1 free OK  
2 free OK

S

(1 free OK  
2 free OK

S

(1 free OK  
2 free OK

S

(1 free OK  
2 free OK

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(1 free OK  
2 free OK

S

(1 free OK  
2 free OK

S

(1 free OK  
2 free OK

S

free-75  
100

Varnish  
Mulle Circles 2 plates  
Vis 3,02

~~OVER~~

75 plates 6 (2 into, 1 chip)  
OK 68 of which 18 mm  
14 unrun 2 Patch 34 count

408E

70 plates 600

100 Rasur

6 1/2 6/4

2% Para

10% Glycerin

(1 free OK S

(2 free OK S

(1 free OK S

(2 free OK S

(1 3-2" OK S

(2 4 10" pull-out S

(1 free OK S

(2 3-6" OK S

(1 free OK S

(2 1-2" OK S

(1 free OK S

(2 free OK S

free 60%  
OK 90

5 1/2 11-11 1/2 Crisp-spokes

Oven 1103-11

75 plates 6180

69 OK of which even 16

unseen 17 10000 36

409 E 70 plates 60cc

100 Resin

6 1/2 6/4

2 1/2 Para

15 1/2 Glycerin

(1 free OK S

(2 / OK S

(1 1-2" bend OK S

(2 3-4" OK S

(1 / OK S

(2 2-4" pullout S

(1 free OK S

(2 free OK S

(1 2-3 OK S

(2 2-2 OK S

(1 free OK GS

(2 free OK S

Warmish  
Matth. Cresps, plates full of holes

oven

74 plates 2 bars 1 raise  
OK 71 of which 11 even 13 uneven  
2 patch 45 (counted)

Moore says around in pull out  
we always have a fog

\* Big qob var so great crossed +  
crossed blank is actually forward  
var down in crack

~~374 EX For 374 EX see 2nd page  
in this book -~~

~~Moore make 24 flat var plates  
+ 6 wood holders to hold~~

~~them to total now 1412  
blanks -~~

375 EX

Used 404 E Var  
Turn down 12 Reg var plate  
Edges 20 Edges is only 10/1000

		above level west end of	1/2	
(2	tree OK	5	(1 free blankbook	) Two much var after Edg-iffy
	OK	5	(2 "	
(1	tree OK	5	(1 tree OK	5
(2	tree OK	5	(2 tree OK	5
(1	tree qob var	5	(1 tree OK	5
(2	tree qob var	5	(2 tree OK	5
(1	tree OK	5	(1 tree OK	5
(2	tree OK	5	(2 tree OK	5
(1	tree OK	5	(1 tree OK	5
(2	tree OK	5	(2 tree OK	5
(1	tree OK	5	(1 tree OK	5
(2	tree OK	5	(2 tree OK	5



410 E Weld Varnish

10 Resin -  
16 Alcohol  
800 ml 6/4  
600 ml Para

for welding

144 minutes works less than  
29 minutes as I don't  
watch -

This is so of 410-11 + 412

Dried a little - then put right  
on hot plate 180° Fahr baked  
up but went rubbery in

$1\frac{1}{2}$  minutes

No 10 is just as good as  
411 + 412 Think can  
use less Para + do it  
in 5 minutes

411 E

10 Resin  
16 Alcohol  
800 ml of 6/4  
800 " " Para

412 E

10 Resin

16 Alcohol

7 gram 6/4

600 mg para —

362	Transf	29	200K	4P0	4CR0	1	30%	7	19%
364	"	36	11 OK	11	12	7	40%	7	20%
365	"	25	10	10	6	6	36%		10%
366	"	25	9	10	6	5	60%	2	30%
367	"	29	19	3	5				
368	"	21	8	11	7	1	140		100%
369	"	31	12	8	11		40		8%
370	"	28	13	7	8		46		10
371	"	30	19	4	3	3	63	1	30-
372	"	28	10	11	4		35	3	40-
373		29	10	9	6	1	34	3	50-
							424		31%

Net Records

22.4 average OK Transfers

Average Records 12.4%

It looks as if high phenol was not a success no matter how it is varied

413 E Free phenol Van contracts

362  
363  
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369 - 5  
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373

Print on Reg Music -

all the plates left are to be transferred & printed on Regular Blank

And account kept of % OK both for Transfers + Prints -

Apparently 368 Phenol Van gives highest production of Comel Records 40%

414F Moore -

Flow the 2  $\frac{1}{4}$  steel plates  
ground flat Flow with  
Reg Varnish Bake Regular,  
Schedule in oven & put in  
box & bring over - I want  
to turn the faces of the Varnish  
on a new turning off  
Machine Lubri is making

Reg plates

- 1 free OK
- 2 free OK
- 1 free OK
- 2 free OK
- 1 free OK
- 2 free OK
- 1 free OK
- 2 free OK
- 1 free OK
- 2 free OK
- 1 free OK
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- 1 free OK
- 2 free OK

Reg blanks + Reg Van  
no squeeze or flow  
of vacuum  
Smooth plate fin - 1412 blank

All these but the flat  
surface which is 1412 blank  
are reg plates + reg blanks  
All look OK don't squeeze  
out on edges or chew the  
varnish up like regular  
schedule

We will print 6 using  
only 500 pressure instead  
of 1500 -

87.5% free  
100% good

1412 OK except poor print

Printed 6 -

- 1 headspace + 45cc 1412 blank
- 2 1412 flat OK except poor print smooth side 60cc
- 1 - pp com of OK
- 2 pp " OK
- 1 pp " Corral
- 2 pp " Discard
- 1 pp " Discard
- 2 OK but 3 OK + long side flow of van
- 1 pp " Corral one free fin blank
- 2 OK
- 1 OK
- 2 OK

415 E

Reg 60cc 1412 blank

Moore take 100/1000 steel plate with  
groove near edge of Reg Van 45cc  
Transfer Reg blank heat bring to  
point where it squeezes out a little,  
1 min at 100 lbs pressure -

Temp	Pressure	Notes
2	125 lbs pressure	200°
3	125	230°
4	125	260°
5	125	280°
7	125	303°
8	"	312 no squeeze
8	250	318 Squeeze triple
10	250	319 no more
11	"	320 Staked Curf
12	"	320 from the bottom
13	"	320
14	"	"
15	"	"
250	1 1/2 min	316
"	2 1/2	286
"	3 1/2	244
"	4 1/2	206
"	5 1/2	174
"	6 1/2	150
"	7 1/2	144 Took out

Cooled.

Ran three Regulars reg Untransfer &  
print Schedule to Check 4/16

Transferred 96-91 OK  
2 pullouts 2 birds 3 ckd Var  
night inspection 94%

Prints 91-54 OK 3 cracks  
4 feed line -

Final inspection to clock room -

416E

Transfer + Print <sup>96</sup> 100 Reg Var  
+ Bleed in  
on changed Schedules

Transfer Reg Except 300 lbs  
pressure!

Print regular Except use  
700 lbs instead of 1000

Use Reg Music

---

Transferred 96 91 OK 4 ckd Var  
1 mechanical defect  
94.8% OK -

Inspected at night + may not be  
so high % -

Prints, 91 OK 60' 12 cracks 3 poor print  
16 fine cracks

Final inspection for clock room -

66% OK -  
not tested for music

Prints of 415E

45cc. Reg Van + blank

RO	Fine $\text{H}^{\text{H}}$	with that piece
1	good $\text{H}^{\text{H}}$	
2		Rating for surface
3 III		made different here
4 II	fair II	fine here is a good
5 II		on 1412 - good is
6 $\text{H}^{\text{H}}$	Ref.	fair on 1412 +
None		fair is Ref on 1412

Above only Experiment

~~1412 45cc 500 lb print~~

RO	fine $\text{H}^{\text{H}}$	$\text{H}^{\text{H}}$
1	good	
2		
3 I	fair	
4		
5 III		
6 III	Rough	
None		

All cracked  
blank no  
glau surface

1412 Blanks

500 grms weighed out  
500 lbs rubber pressure  
 $\frac{1}{8}$ " strike off.

Leaves moulds clouded.  
Average weight 410 grms  
Average gauge 210 @ 220  
Powder ground Fuller mill 90% thru 180  
5 wood 2 chalk 2 shellac " 180  
Screened Newago 98%  
Delivered to Presses on Spring truck rubber tires  
Regular schedule

2 min Contact  
7 " 1000 lbs 100 lbs steam  
7 @ 9 min cool.

24 blanks 91.6% 007 + 1ccs  
95.8 010 + "



Printed 6 - 600 lbs instead of 1000

- 1 slight pp-OK
- 2 OK
- 1 slight poor print line OK Round smooth
- 2 OK Round no mangin
- 1 - fast line - pp-align Round no mangin
- 2 - slow long print OK - in smooth
- 1 OK Round side
- 2 OK " "
- 1 Poor print notched Round
- 2 poor print mangin smooth
- 1 - pp, mangin Round OK
- 2 slight between mangin OK smooth OK

417E  
RO  
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417EX - Print at 500 lbs  
Use tracked moulds on both sides

- 1 poor print no crop
- 2 " " but only little no crop
- 1 OK good print
- 2 OK " "
- 1 almost good poor print start
- 2 good print 1 faint parallel ch 1/8 from edge
- 2 Both poor print best mostly good - few mangin ch

This shows that with reasonable  
heat Var 1412 Reg Var would be  
OK - + 357 better

- 1 - OK
- 2 Slight poor print
- 1 OK
- 2 OK

Welds good  $\frac{1}{8}$  @  $\frac{3}{16}$  worst

417E See 1 page back

12 of the 1412 brushed blanks  
Reg Var 45 c.c.

Transfer on following schedule

1 Min Contact 100 lbs  
5 " at 125 "  
6 " " 250 "  
Cool.

Blanks stick to plate 1 side 6  
Released freely both sides 2  
4

Transferred 12 12 OK - 100%  
after edging & buffing + day inspection  
all OK 100%

Printing schedule Reg is 2 min heat  
3 min Contact 5 min 1000 6 Cool

Print 417. Reg except reduce 5 min at 600  
P.

418E

90

1

21

3

41

5

6

None III - 16

Func III III III III III 16000

good

fair

Ref.

12 sec  
12V  
1V

Both sides touched

Inspection - ~~cut thru~~ Rough  
OK III III . 120 III

75% OK -

Put away for time test,

2-26-16 - noon -

Note This is Regular Vari 45cc 1412 Blk  
Schedule 250 lbs pressure 85.5% OK  
Printing 600 lbs pressure 75% OK

Get record of the 73 left over  
for Print

Fading Eye inspection 71 Records 35OK 34OK 2-fad him  
Mount of work progress Total done 36?

418E

This means either 250 not  
enough or it should be put on  
at once -

Run thru 96 1412 blanks traced  
Use Reg 45cc Vari

Schedule  
1 min Contact 100 lbs pressure  
8 " at 125  
6 " at 250. Cool

Print 12 at 600 lbs pressure.  
until we see how they print,

Transfers 96 - OK 85 50000 Center  
Center red left OK - 1 Thin Margin -  
85.5%

Run balance on Music record  
& have up stairs steel  
print - using same  
print schedule -

Note 418- + Compare 419-  
Same Blank - Same Schedule  
Req Var + 387 Qty Var 45cc + 60 cc

Req Transfer efficiency 85.5%  
387 " " 33.3%

The difference is due to cooked  
centers + pull outs on 387

Evidently 387 being thicker or not  
so much condensed, or has poorer  
flowing qualities cannot make  
good contact between blank + plate  
hence cooking at center

We should vary time + pressure  
till we get proper schedule

This is only qty 1412  
250 lbs. Transfer up to make  
up to here -

419 E

Transfer 12 1412 crushed

blanks Using Varnish plates  
from 387 E - 60cc

Use Transfer schedule of 318

Use 1 Mini Contact 100 lbs

5 " 125  
6 " 250.

- |         |                         |        |                             |
|---------|-------------------------|--------|-----------------------------|
| (1 free | 1 Pull out, but reinit  | 1 free | Long ("square ok            |
| 2 free  | OK                      | 2 /    | bind                        |
| 1-free  | Crack left.             | 1 free | Crack = Group ok            |
| 2-1/2   | OK                      | 2 /    | OK -                        |
| (1-free | Cracked ok)             | 1 free | OK                          |
| 2-1/2   | Cracked ok)             | 2      | 2-1/2 long Cracked pressure |
| 1 free  | PO                      | 1 free | OK                          |
| 2 4-8"  | PO) (Re) Centers        | 2 /    | OK -                        |
| 1 /     | OK                      | 1      |                             |
| 2 4-6"  | OK                      | 2      |                             |
| 1 free) | OK                      |        |                             |
| 2 /     | OK                      |        |                             |
| 1 free  | OK                      |        |                             |
| 2 /     | OK                      |        |                             |
| 1 /     | Long Edge ok - in 10 6" |        |                             |
| 2 2-3"  | bind pull out           |        |                             |

See Original  
page 395E  
for record of  
419  
420  
421  
422

4 OK

420 E

Dup of 419

Except use 391 E Vespertilio

- |                               |                       |
|-------------------------------|-----------------------|
| ( 1 free Cooked C chd         | ( 1 free PO-long ch   |
| 2 free longflow crabs         | 2 / Marquich          |
| ( 1 free OK                   | ( 1 2-5 PO            |
| 2 / OK                        | 2 4-8 OK              |
| ( 1 free PO                   | ( 1 free Cooked C chd |
| 2 / PO                        | 2 / " OK              |
| ( 1 free Cooked C bird        | ( 1 1-2 Cooked        |
| 2 1-6 " " OK                  | 2 3-5 " Cooked        |
| ( 1 free Cooked C (low crabs) |                       |
| 2 free Cooked " "             |                       |
| ( 1 free OK                   |                       |
| 2 2-6 OK                      |                       |
| ( 1 free cooked PO            |                       |
| 2 2-4 " cooked PO             |                       |
| ( 1 free Cooked PO            |                       |
| 2 2-5 Cooked PO               |                       |

1 OK

421E

Dup of 419E

Except use 395E Van plates

- |   |                     |
|---|---------------------|
| (2 1/2 ✓ OK                                     | (1 free OK          |
| OK  | 2 5-10" pulled over |
| (1 free Cooked C                                | (1 free OK          |
| 2 1-3" "  | 2 2-4" OK           |
| (1 free Cooked C ck)                            | (1 free Cooked ck)  |
| 2 2-4" OK                                       | 2 2-5" Cooked ck)   |
| (1 free OK                                      |                     |
| 2 free OK                                       |                     |
| (1 1-1-2" Cooked ck)                            |                     |
| 2 2-3" Cooked CKD                               |                     |
| (1 free Cooked ck)                              |                     |
| 2 1/2 ✓ Cooked                                  |                     |
| (1 free Cooked only long wings ck - unequal Van |                     |
| 2 1-3" Cooked only                              |                     |
| (1 2-3" OK                                      |                     |
| 2 3-4" PO                                       |                     |
| (1 free OK                                      |                     |
| 2 1/2 ✓ OK                                      |                     |

3OKs

422 E

6 1/2 3/4 1/2 Pm

Drop of 419 G

Except use 399 Van Plates

- |   |                           |
|---|---------------------------|
| (1 free OK  | (1 free chd from hole OK) |
| (2 2-6" OK  | (2 2-6" Cracks)           |
| (1 free OK  | (1 free Cooked ch)        |
| (2 / OK   | (2 free Cooked)           |
| (1 free OK  | (1 free OK                |
| (2 / Po-  | (2 / OK                   |
| (1 free OK  |                           |
| (2 / OK   |                           |
| (1 2-3 OK (light coated)                            |                           |
| (2 3-5" OK (coated)                                 |                           |
| (1 1-2" 2 pos small                                 |                           |
| (2 2-4" "   |                           |
| (1 free Slight Cooked C same long edge ok closed up |                           |
| (2 free " "   |                           |
| (1 free cracks closed long                          |                           |
| (2 free OK  |                           |
| (1 free OK Slight red Center                        |                           |
| (2 free OK  |                           |

5 OK

#	Notes	019	034
1	dished on transfer side	019	034
2	"	025	022
3	"	027	025
4	45 CC flat.	000	flat
5		023	032
6		014	flat

#	Notes	000	000
1	those with 387 Varnish on 1 side - flat	000	000
2	60 CC	000	000
3		000	030
4		020	017
5		000	015
6		0115	025

Collapsed within an hour  
 These put away on top of  
 book case to be collapsed  
 for dishing from time to time

Z-25-16 GRM-

# PHE NOM ON ON

423 E

Pick out couple dozen rsg blanks  
 and 2 dozen 14-12 blanks see  
 they are same Calliper's -

Transfer to 6 of each on one  
 side of the blanks to see the  
 amount of dishing of the 2  
 Varnishes ~~387~~ 387 E  
 will give -

Be sure that the plate on  
 which bare blank sits is  
 itself perfectly flat,

Calliper as to thickness  
 for all 2 Run in same press -  
 Schedule 1 mm contact 100 lbs  
 8 at 125  
 6 at 250 Cool

424 E Make this varnish -  
Make up enough

387 E Varnish to flow 400  
plates - Only flow 200 50cc.

plates and keep the balance  
of the varnish in Ice Chest, until  
further notice -

---

flow 200 plates -  
50cc -



Turned 60cc Transfer -  
fine surface not withstanding it  
had a turned surface

It didn't fill 600 pressure  
paint, not enough

## NOTICE

A turned Transfer although it  
has a matte surface produces  
a Y Record with good polish

425 E

Fred OK starting on giving Transfer  
plate an extra squeeze before transfer  
but pressing lead with polished  
plate to even it up & make it  
flat Use 200° Fahr &  
250 lbs pressure only 10 sec  
squeeze with pressure on  
then cool keeping pressure  
on till 120 deg then screw

These are to be transferred on

1412 blanks 250 lb

chedule - 4 painted 600

also some on Reg blanks

Reg transfers 45CC Cant do anything with  
only few apats press - with 391  
75% pressed OK but looked part  
cracks - 391 has no cracks where  
pressed - Fred says 391 is very soft  
compared to Reg Van -

This Scheme dont promise well

2 Cast iron plates  
June 11

611

2 Cast iron inspection -

1 = feed line cracks want an edge groove

2 slight crack

flow of Var on each side  
wants a couple of grooves at  
Extreme Edge to stop flow.  
grooves don't do it - Its too much flow due  
to too much pressure want lower  
pressure or a perfect schedule & probably  
more time at high heat in oven to condense more  
but not by adding more 1/4"

We must have outer 2 edge grooves to  
block smooth part or Margin from  
squinting

Pr 30

1 = feed line cracks want an edge groove  
2 = slight crack  
3 = smooth part or Margin from  
squinting  
4 = must have outer 2 edge grooves to  
block smooth part or Margin from  
squinting

426 - 250 lbs Transfer Schedule

Transfer 2 Cast iron plates  
60cc Var Reg Turned off in

Music recording machine

Frss. No squirt =

one side OK other side 1/16 1/32 holes in cast  
iron - pull out had plate been OK  
both would be fine -

Single steel plate, other side reg plate -  
not turned off -

Steel Plate Record  
other side Reg of Silver plate

fine V surfaces = knives line OK  
1/16 holes to form edges or short squirts OK

otherwise not so good surface  
1895, Var Cut - 1

427E

Moors make 6 Transfers  
391 E Van on 1412 @corks  
250 LB Schedule -

Want to try an Experiment  
of turning off transfers  
instead of plates -

Get as soon as possible  
They are in Chem room now -

Spermaceti - Cetyl Alcohol -

M.P. 50° Cent. B.P. 314°C

Styrone Cinnamic Alcohol, Monoatomic  
B.P. 250° C

glycols - Diatomic Alcohols

Glycerin Triatomic "

Myricylic Alcohols from Bee-wax

Cetyl Alcohol from Chinese Wax

~~We have made these blanks  
oranges in them but th.~~

429-E

Mozz make 2  $\frac{10}{1000}$  grooves  
in both plates of one mould use  
make 14 1/2 blanks -

Finished blank

4 Make some blanks

Also Couple old working  
Moulds & throw up two  $\frac{10}{1000}$   
rings at Extreme  $\frac{1}{32}$  in ~~in~~ from  
Edge to stop feed line drag

Record - just opposite  
of Blank

Want to find which is  
best,

Moore -

Caliper diameter of  
some of the 1412 blanks  
with 60cc 387 Var on  
where the Var has been  
mark a Cracked Marqu  
The eye may not show it  
but perhaps Record  
is no longer round

Edison did it  
nothing in it

430E

Take the 6 Blanks Transferred  
only one one side with Regular  
Var 49cc And the 6 Blanks  
Transferred only on one  
side with 387 Var 60cc  
And print them on the  
Varnish side only with  
Cracked Blanks  
The Reg Schedule  
1000 lbs -  
Want to see if they dish  
Till more

Moore

Get 418 E 75 Records  
Report

Also the Records

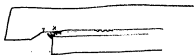
Also 416 - 84 Records

# NOTICE


Can it be Edge  
& feed line cracks  
are due to blank  
flowing - Calliper  
& see if larger at  
neck Var CKD points

Why did 426 now have  
feed line crack

431

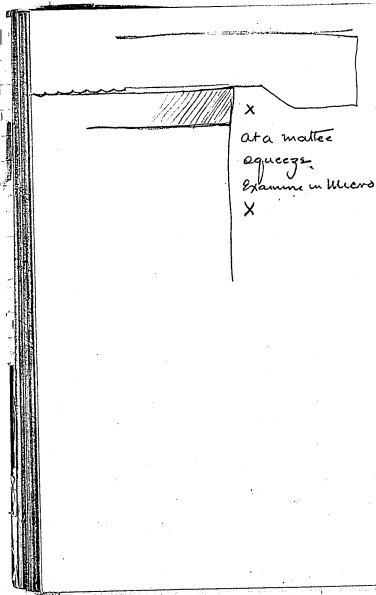


perhaps bottom of Var on blank is  
anchored but lap is on a small  
slipping metal & lap squirts &  
flows outward this making  
feed line cracks - Lower pressure  
Var longer time & more condensed  
Var near should -

Where there are margin & feed  
line cracks look in Micro &  
see if  Varish

hasnt gone forward beyond edge  
blanks - if not of blank's cent  
eccentric .005 or .006 this  
strengthening Var -

Saw piece out after Callipering  
& look in Micro - could be completed  
by grooving blank under smooth part  
or 1/2" of this line - keeping 1/2" smooth - in addition  
the anchor blank under



#### Y Micro

Prints of blanks which have a groove at edge or also prints from working mould copier which has an outside ring raised up, on edge

The later ringed mould produced a print which was superior to the 2 best prints made at same time,

But the expert shows that this ring does not stop entirely Margin cracks or feed line etc. where the varnish is thicker on one part of edge than the other & gives a matte edge - it draws the varnish & makes the 2 kinds of cracks -

~~The~~ The Van used was 404E on 1412 blank -



106 Weiss -

The pull cuts could probably  
be prevented by more  
hardening in Oven or  
press, longer holding in  
Oven at 235 would probably  
be best say 1 hour or  
2 hours more - or 5 minutes  
more, in press

fund if this is reg schedule  
except 300 pressure -

cloud  
The cracks possibly could be  
prevented by 350 pressure  
put on at once to stop  
Cooking & unequal hardening

106 Weiss

Ground at edge blanks 387E Var  
300 lbs pressure in Transfer press 141Z blank  
60 Cc Var

- |           |                    |   |
|-----------|--------------------|---|
| (1 Free   | OK                 |   |
| (2 1-4"   | OK                 |   |
| (1 free   | OK                 | very slight Cooked center                   |
| (2 "      | OK                 |   |
| (1 1-2"   | OK                 | 17 OK compress OK<br>5 Transfer OK          |
| (2 2-3"   | Pull out           |   |
| (1 free   | OK                 | 40% OK -                                    |
| (2 free   | OK                 |   |
| (1 free   | OK                 | } slight, red center                        |
| (2 2-6"   | closed crack       |   |
| (1 free   | OK                 |   |
| (2 1-5"   | OK                 |   |
| (1 free   | OK                 | } very slight cooked center                 |
| (2 "      | OK                 |   |
| (1 free   | OK                 |   |
| (2 1-4"   | closed crack       |   |
| (1 free - | very fine pull out |   |
| (2 2-6"   | Manin blower Chd   |   |
| (1 2-4"   | OK                 | } Cooked center Edge of blank <u>Rushed</u> |
| (2 2-3"   | OK                 |   |
| (1 free   | Fine pull out      |   |
| (2 "      | OK                 |   |
| (1 free   | OK                 |   |
| (2 3-5"   | Pull out           |   |

[ITEM(S) FOUND IN BOOK]

Transfer

Para	$\frac{1}{4}$	9/16	Plat	Baby	Free	Recess	Unit	OK	Even	Unid	Unit	Patk	Unit	OK	Unit	OK	Unit
1	6	4	71	15	9	1		55	12	26	16	1	16	10	4		387
1	6	6	71	-	11	9		61	18	26	16	1	10	12	6		388
1	6	10	72	9	9	4		59	15	20	22	2	13	10	5		389
1	6	15	73		7 <sup>36</sup>	2		68	14	35	17	2	5	10 <sup>4</sup>	4 <sup>11</sup>		390
1	6 $\frac{1}{4}$	4	75	2	11	4	$\phi$	69	9	21	36	3	6	11	5		391
1	6 $\frac{1}{4}$	6	70	3	12	2	1	63	8	31	23	3	7	9	4		392
1	6 $\frac{1}{4}$	10	74	5	7	5		63	8	16	36	3	11	10	4		393
1	6 $\frac{1}{4}$	15	74	2	8 <sup>21</sup>	-	-	69	14	39	7	9	5	3 <sup>11</sup>	3 <sup>11</sup>		394
2	6 $\frac{1}{4}$	4	75	2	10	4		67	3	8	54	2	7	11	5		395
2	6 $\frac{1}{4}$	6	75	4	9	9		60	5	23	30	2	8	6	1		396
2	6 $\frac{1}{4}$	10	75	-	4	7		67	5	32	28	2	7	9	3		397
2	6 $\frac{1}{4}$	15	75	6	3 <sup>16</sup>	3		65	19	38	5	3	9	9 <sup>11</sup>	4 <sup>11</sup>		398
$\frac{1}{2}$	6 $\frac{1}{4}$	4	74	3	9	9	all under	62	4	32	23	3	11	11	5		399
$\frac{1}{2}$	6 $\frac{1}{4}$	6	75	8	9	9	with	57	8	31	17	1	17	12	6		400
$\frac{1}{2}$	6 $\frac{1}{4}$	10	74	3	10	2	with	66	13	38	12	3	5	7	2		401
$\frac{1}{2}$	6 $\frac{1}{4}$	15	75	-	8 <sup>16</sup>	1		73	19	23	24	7	1	10 <sup>11</sup>	4 <sup>11</sup>		402
1	6 $\frac{1}{2}$	6	70	5	8	-		66	16	3	45	-	3	10	4		404
1	6 $\frac{1}{2}$	10	75	11	9	-		62	8	24	28	2	12	9	4		405
1	6 $\frac{1}{2}$	15	75	1	8 <sup>21</sup>	2	none	71	4	20	45	2	3	10 <sup>11</sup>	4 <sup>11</sup>		406
2	6 $\frac{1}{2}$	6	75	6	12	-		68	18	14	34	2	6	12	6		407
2	6 $\frac{1}{2}$	10	75	6	9	-		69	16	17	36	-	6	11	5		408
2	6 $\frac{1}{2}$	15	74	2	8 <sup>21</sup>	1		71	11	13	45	2	3	10 <sup>11</sup>	4 <sup>11</sup>		409

15 - 15<sup>24</sup> Transfer

10 14<sup>11</sup>  
6 16<sup>11</sup>  
4 19<sup>11</sup>

less qty of ymc test

Thaco  
37  
36  
39  
43

less qty bit of tacco

36  
30  
41  
39

[ITEM(S) FOUND IN BOOK]

Para	$\frac{6}{4}$	Phenol	Plates	Bubs	Impure	<sup>1700</sup> Holes	Dent	Raised	OK	Even	Uneven	Wrink	Patck	Dis
1 $\frac{1}{2}$	8	7	73	2		11		1	73	69	23	44	2	4
1 $\frac{1}{2}$	8	8	82	9	2	7			82	70	38	4	28	12
1 $\frac{1}{2}$	8	9	78	11		11	1		78	66	24	4	38	12
1 $\frac{1}{2}$	8	10	79	18		6			49	61	20	8	26	7
				40			35				70.2		33	46
3 $\frac{1}{2}$	8	7	70	2		11		5	70	62	3	9	48	2
3 $\frac{1}{2}$	8	8	70	1		12			70	69	16	9	44	1
3 $\frac{1}{2}$	8	9	70	12		6		3	70	55	7		48	15
3 $\frac{1}{2}$	8	10	74	2		8	37		74	71	3	11	51	3
				25							20		48	
3 $\frac{1}{2}$	7 $\frac{1}{2}$	7	70			12		2	70	68	4	7	55	2
													48	2 <sup>17</sup>
3 $\frac{1}{2}$	7 $\frac{1}{2}$	8	70			11			70	70	5	12	53	0
3 $\frac{1}{2}$	7 $\frac{1}{2}$	9	70	4		9		1	70	64	3	5	53	6
3 $\frac{1}{2}$	7 $\frac{1}{2}$	10	70	1	1	11	43	1	70	67	5	20	42	3
				6							47		51	11

[ITEM(S) FOUND IN BOOK]

27  
Moon - Cooling down  
down so black &  
Venus control same  
printing

[ITEM(S) FOUND IN BOOK]

5% Residue after  $CCl_4$  -

Site about same as the white crystals

~~It~~ has bubbles just same -

but notice that unlike the white

stuff it don't crack, simply

puff in many places -

Whence when 10% Trichlorophenol

was in no bubbles & lifted as

a whole

Later it starts to show isolated

cracks -

Also find it sticks to plate

Worms - Note this -

[ITEM(S) FOUND IN BOOK]

Reg Varnish 15% more 6/4 Lin Reg  
9% - added  $2\frac{1}{2}\%$  crude para  
+ 10% Trichlorophenol

acts fine on small metal  
plates acts very quick - no bubble  
is tough after hanging on <sup>slip</sup> plate  
direct with glass plate resting  
on it - looks very promising

5% white crystal C<sub>6</sub> from isocatal  
Crude para by Carbin Chloride  
on glass plate 3/4" above hot  
plate - rub over in 20 minutes  
bubbles - notice after 2 hours on  
3/4" glass when put on plate it puffed  
in spots & also cracked, all short cracks  
Comes off plate ok

[ITEM(S) FOUND IN BOOK]

10% Naphthalen

2 1/2 Coude Para -

turns black -

after gas rubs any red -

bubbles a little acts a cont

exp time perhaps little

blacosi - on hot plate puffs in bag

comes off fairly easy =

5% Dithion Para - B.S.C. - turns very

black on little plates at first after

a while it turns red like the

others - ~~cracks slightly~~ puffs up in

placess when put direct on plate

Evidently Para above makes too

great contraction & makes unusual

cracks wants a filler like Para

or Trichlorophenol - Dithion dont act

any quicker than over Para -

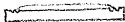
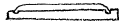
Shks little to plates fine apart, comes off

**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Record Book No. 8**  
**Notebook, N-16-02-22.2**

This notebook was used by Edison during February-March 1916 for notes on experiments to improve the composition of disc record blanks, the application of varnish surfaces during the transfer process, and the operations of disc production and pressing. Included are notes on different metallic plates used during transfers, along with a calculation of the number of records that might be produced each day. Also included is additional information on experiments 423E and 457E, which are described in Book 7 and Book 9 respectively. The front cover is labeled "Disc 8" and "Mechanical." The pages are unnumbered. Only 6 pages have been used.



Made 2 1 1/2" flat disc with ring  
at Edge another with 2 rings



There is very little advantage in  
the 2 ring - can probably go  
a little higher angle before varnish  
runs over edge

Flowed Varnish over both  
but it does not stop the  
wrinkles on the face of the  
metallic plate & bottom of  
Varnish -

2-22-16-

600 Revolution Min 300 threads to inch  
3" to turn -  $1\frac{1}{2}$  minute to face  
of 200 threads which is plainly  
1 minute -  $1\frac{1}{4}$  min for complete  
Operation 1 place  $2\frac{1}{2}$  for a  
records

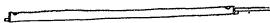
About 250 Records per machine  
1 girl attends 2 machines

500 Records daily

3 mls per record

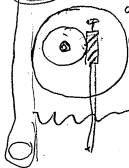
40 machines - 20 girls

2-22-16



Just turned off a  
record it is Ok

& this scheme will  
work -



no need to turn off  
any part except  
just leaving label  
to edge

Lead plates 100/1000 + 1/8" - after,  
Baking the great strain on Varnish  
dishes) the lead plates BAI -

Lead is hopeless -

Fried  $\frac{1}{4}$ " steel Tool steel, this  
is all right -

Cast iron  $\frac{1}{4}$ " gets a little out  
but think it is all right as  
~~the~~ they are drawn very little  
by contraction of Varnish

$\frac{1}{8}$ " lead plate is drawn dished  
by contraction of the  
Varnish - It flattens  
out under pressure: flat  
but that don't make Var Even

F 423

On Feb 25 transferred to one side only  
 6 blanks 1412 brushed both sides with  
 Weld Var - Used - Reg Var 45cc

Also transferred 6 of 387 Var 60cc ones  
 only

	Feb 25	March 4	Reg				
1	019	034					
2	025	023					
3	027	025					
4	000	000					
5	023	032					
6	014	000					
						387	
1	000	March 01 000					
2	000	March 01 000					
3	000	030					
4	000	001					
5	000	015					
6	015	025					

Duplicate of 423 Transfer 1 side only

4  
Match Req 45cc

1	050			OK
2	030			OK
3	050			RadC OK
4	033			ContC OK
5	038			RadC OK
6	028			OK
mean	038.1			

387 50 cc

	4.15 Match			
1	033			OK
2	045			OK
3	034			Manu OK
4	025			Left chd
5	039			OK
6	013			RadC OK
	033			

Schedule for transfer in a  
was 3 min contact at 100 lbs  
12 " at 300 lbs

1412 blank brushed both sides

**Notebook Series -- Notebooks by Edison and Other Experimenters  
Disc Record Book No. 9  
Notebook, N-16-03-01**

This notebook is a continuation of N-16-02-25. It was used by Edison during March 1916 for notes on experiments to improve varnishes and schedules for transfers, as well as efforts to eliminate problems with record edges and cracking. There is also one notation by an unidentified experimenter. Included are notes describing a sequence of experiments numbered from 431E to 478E. Many of these entries involve different applications of heat and pressure during the transfer and printing processes and usually provide a tally of acceptable and unacceptable transfers. Other entries relate to the shapes and edges of transfer plates and record molds. Some notes are in the form of instructions to Sherwood T. (Sam) Moore or other employees. At the end of the book are several rough drawings of molds and presses. The front cover is labeled "Disc 9." The pages are unnumbered. Approximately 170 pages have been used.

Get rid of the thick + thin var at  
 Edge - make it even then squeeze  
 checks will disappear with it long  
 Marqu tracks -

Justap pull out Curve 5 to  
 4 minutes more in Crossref  
 press -

431 E

Reduce the diameter of 12 1412  
 blanks  $\frac{1}{8}$  of an inch and  
 transfer 12 of these blanks  
 with 387 varnish plates, 600

Use regular Transfer schedule  
 except only use 300 <sup>+ 20 minutes hold</sup> pounds.

Print them all - at  
 600 lbs pressure

- |                                 |  |
|---------------------------------|--|
| ( 1 free OK                     | ( 1 free OK                                    |
| ( 2 / OK                        | ( 2 / OK                                       |
| ( 1 free OK                     | ( 1 2-3" OK <sup>Red Center slight</sup>       |
| ( 2 / OK                        | ( 2 1-2" OK                                    |
| ( 1 free OK) <sup>slit CC</sup> | ( 1 3-3" OK                                    |
| ( 2 free OK)                    | ( 2 3-6" OK                                    |
| ( 1 2 1/2" OK                   | ( 1 2-3" OK <sup>if any checks</sup>           |
| ( 2 2-2" OK                     | ( 2 2-4" OK                                    |
| ( 1 free OK <sup>if any</sup>   | ( 1 2-2" OK <sup>long OK parallel at top</sup> |
| ( 2 2-6" OK <sup>if any</sup>   | ( 2 1-3" OK                                    |
|                                 | ( 1 / OK <sup>if any checks</sup>              |
|                                 | ( 2 / OK                                       |

1 F-2" OK } Spectro red Center Cks  
 2 2-3 OK }  
 1 1-3 OK } Red Center  
 2 2-3 OK }  
 1 2-3" OK  
 2 1-4" OK  
 1 1-2" OK  
 2 4-6" OK  
 1 free OK  
 2 free OK  
 1 1-2 OK Red Center  
 2 1-3 OK  
 1 free OK  
 2 1-2" closed cracks S S  
 1 free OK  
 2 free OK  
 1 1-2 OK  
 2 4-6" OK  
 1 free closed cks S  
 2 1-2" closed cks S  
 1 1-2 OK } Red Center  
 2 3-5" OK }  
 1 free OK  
 2 1-2" closed OK S

432 E

Transfer 12 1412 Blanks  
 Reg schedule Except  
 300 lbs pressure Use 387  
 + 20 minutes hold  
 Van 60 cc  
 Turn down the transfers  
 so they are 1/4 of inch  
 less in diameter -  
 Then print them all  
 on ~~1000~~ <sup>fracked</sup> moulds  
 regular schedule  
 except 600 lbs pressure



This looks as if  
we wanted the  
Edge, say 010

433E

12 Reg plates cut flat  
no Edge - Reg Van 60c

Transfers 1412 blanks -

300 pressures 20 minutes

(1 free - OK  
2 free OK OK parallel at Edge 1" long will edge off

(1 free - OK around Edge - red Edge Van then on Edge  
2 free " " " "

(1 free " " " "  
2 free " " " "

(1 free " " " "  
2 free " " " "

(1 free " " " "  
2 free " " " "

(1 free " " " "  
2 free - " " " "

Edge to just clean them up +  
print 600 deep lbs -

Nothing could be better for free  
release its perfect

434E

5 Iron  $\frac{1}{4}$ " plates -  
Transfer on 1412 blanks  
300 pieces w/iz - Hold  
20 minutes, Req Var 60 cc  
Print

2. Cast iron plates free release, margin  
OKs near edge of blank, in 2 places went in to  
far to clean up - not 6sq cracks but  
fine check cracks:

Steel of same size of blank showed  
check cracks  $\frac{1}{16}$  in some places  $\frac{1}{8}$  no work  
 $\frac{1}{16}$  off the edge as no Vanadium

~~Cast~~ Steel shows up more  
favorable (10) plate size of blank  
shows up better than the plates  
 $\frac{1}{4}$  diameter diameter -

We are now trying to find a schedule in transferring that will heat a cubic foot transfer without cooking & without flowing it until it gets to a heat of curing that it will flow without cracking, crushing or squeezing & nicking walls.

1st 100 lbs press & heat  
14 min - Cool & examine -  
if cooked too much  
try another lot and heat  
14 min at 125 lbs pressure  
& Cool 2 so and advancing  
25 lbs at each experiment,  
until a good point is  
reached

Then put in new lot  
& hold 14 minutes at that  
pressure & then put on  
300 lbs ~~at~~ 3 @ 5 min  
& print - trying 387  
Reg Var both at same time

387 =

- (1 - Cooked + cks in Cook } no marq cks  
 (2 - 5" red-ck) - not cooked }  
 (1 - cooked 6" ck) (bun) " "  
 (2 " " " " " " " "  
 (2 " " " " " " " "  
 (1 " " " " " " " "  
 (2 " " " " " " " "  
 (1 " " " " " " " "  
 (2 " " " " " " " "
- 387s are not made with  
 extra for 2. Amount of  
 just red black cracks  
 just red black cracks
- 387s are not made with  
 extra for 2. Amount of  
 just red black cracks  
 just red black cracks
- 387s are not made with  
 extra for 2. Amount of  
 just red black cracks  
 just red black cracks

Req Var

- (1 cooked bad ck) no marq cks or PO -  
 (2 " " " " " " " "  
 (1 nearly ok black but closed cracks no PO or marq  
 (2 " " " " both free release " "  
 (1 free 2 1/4" free Release no marq  
 (2 free 5" free " " " "  
 (1 } Badly Cooked almost to edge free  
 (2 } no po or cks at 2 edge  
 (1 Cooked bad-free release no po or marq  
 (2 } free sealant - bad cooked no po or "

Req Var cook bad + some run nearly  
 to Marq w/ black 387 total have  
 2 to 2 1/2 good Marq in or not badly  
 cooked like req.

435 E Note 387 Best here

6 387 60 cc Van Plates  
 6 Req 45 cc "

Run to 100 lbs pressure + 100 lb  
 clean - Keep it at these points  
 for 14 minutes hold both  
 points + Cool - note appearance  
 of transfer -

Thermometer shows went to  
 250 deg in 3 minutes.

280	"	4	"
300	"	5	"
310	"	8	"
320	"	10	"
320	"	11	"
320	"	12	"
320	"	13	"
320 E	"	14	"

most of sequencing  
 takes place in  
 4 minutes -

Cooling

1 min 306 387 60 cc

2 260

3 212

4 172

5 140

7 110

Shows up best

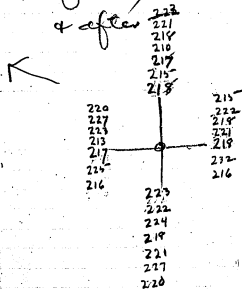
Except on free release  
 perhaps it would show  
 up better still with  
 45 cc

Diff between highest & lowest

215-222	7	009
213-221	8	
217-224	7	007
218-223	5	
210-218	8	017
222-227	5	
218-221	3	006
215-220	5	
221-227	6	011
223-232	7	
223-220	3	007
216-216	0	
218-222	4	009
213-216	3	
216-217	3	007
220-223	3	
221-214	7	008
222-218	4	
213-206	7	014
220-213	7	
226-220	6	011
220-214	6	
219-217	2	008
213-211	2	

436E

Huffman make 12  
 1412 blanks but give them  
 1500 lbs pressure instead  
 of 1000, Caliper before  
 & after



Reg Var on unwarmed 1412 Blanks

- 1 free Bad Cooked OK otherwise
- 2 " " " " " "
- 1 free one by gun cooked " "
- 2 hand other side only little " "
- 1/2 free - only some cook both sides " "

Reg Var on 1412 Warmed Blanks

- (1/2 free - Cooked) i ck - Cook otherwise OK
- (1/2 free Cooked) on slightly more OK " "
- (1/2 free - Cooked) Bad - ck in Cook " "

437 E

Dup of 435

Except pressures increased  
from 100 To 125,

Starts squinting out 130 at 140  
its squirted way out

- 3 - of 387 1412 blanks without weld Var
- (1 6" Red not cooked free
- 2 6" " " pulled out - hand release
- (1/2 6" " Cooked NO PO or Marquies  
one of these 3
- (1 6" " " " only little Cooked

387 ~~3~~ 3 with weld Var

- 1 Bad Cooked ck ~~is~~ no weld no Marquies or PO
- 2 " " " " " "
- 1 Hand Release 6" one not cooked " "
- 2 " " " 6" other Cooked " "
- 1 Neither Cooked 3" center " "
- 2 " " " " " "

5 = 387 -

(1 = 6" Red no weld pulled off - otherwise OK  
2 6" " " " " " "

(1 free } Cooked, 6" Cooked OK  
2 Hand } " " " " " "

1 free } Cooked - 1 band " "  
2 Hand } " " " " " "

1 Hill (hand) Cooked a little Chd in Cook " "  
2 Hand " " only little " "

1 free Cooked 6" pull off in Cook " "  
2 Hand Cooked 6" pull off in Cook " "  
no gain over 100-pounds

1 free only little Cook (Req) otherwise OK  
2 none " " " " " "

1 Horrible Cooked free R. " "

1 free } almost OK few spots Cooked " "

2 free } almost OK " " "

1 free - Cooked some " "

4.37E

Dup of 435 Except use 150 lbs pressure -

6 of 387 Var 60 cc

6 of Req Var 45 cc

In top mound between mound & plate put on both sides a Label ~~387~~ then 5 Req 387 plates

On bottom mound between mound & plate put Labels & use Req Var & then 5 Req Var plates -

Top - Label 387 Var - free release not cooked - 4 @ 5 Red - OK -

Bottom Label Req Var nearly OK cooked only in few spots - 387 was best -

The labels help but not big enough -

438E

150. lbs pressure

- Req Var 4500
2. 1412 blanks with flat plates of req var on - put them in 2 bottom places in press -  
1 with piece of Tin 6" dia } 387 Var  
between each plate & holder
  2. with 1412 blanks that raise around hole has been filed flat on each blank. Req Var
  - 2 with 1412 blanks, that raise is filed flat, use 387 Var
  - P with 2 latels between plates - Moved Req Var
  - 1 latels 387
  - 1 with Req V 2 pieces Tin between M + Plat
  - 1 387 - 2 6" brass  
1 387 - 2 6" brass





# NOTICE

Probably best schedule is  
2 minutes at 100 lbs pressure  
by that time the transfer will  
be squinted as much as it  
will squint & the temperature  
will rise to mat oven  
250 @ 220 or oven temp  
that plates been baked at  
there will be no cooling  
at end 2 min put on  
200 or 250 or less -  
by this method the transfer  
will be squinted &  
transferred at the lowest  
pressure & no harm is  
done -

Moore 9 =

24 blanks 1412 45cc Reg Var -

3 min at Contact 100 lbs -  
12 " " 300 lbs -

24 Transfer 20 OR 1 left 1 Cooked

91.6%

Print 2 min Contact 3 at 200  
lbs - 5 at 600 lbs -  
Cooling way use very  
thick - (Boulford Cooked)

~~Available for transfer~~

Prints <sup>crumb</sup> <sup>Extreme</sup> <sup>Edge</sup> <sup>Chk</sup> <sup>Edge</sup> <sup>mat</sup>  
OK ~~|||||~~ | -  
<sub>Edg mat cks Crumb</sub>

21 printed 21 OK

Edges not crumbled - good

# NOTICE

439 E

2 1 1/2 blanks with extra amount  
of weld var in center about 6" ✓  
use Reg Var plates - 45 cc

1 free } Cooked but Comel OK  
2 free } " " "

1 free } Cooked - roller had but Comel OK  
2 free } " " "

2 1 1/2 blanks with extra weld var  
in center 6" use 387 60 cc

(1 free - super cook OK

(2 almost free - OK

(1 free } little cook - but OK  
2 almost free } " " " 100% ✓

2 1 1/2 blanks with extra 6" weld  
var 6" center center filed down  
use reg var plates

1 free } Cooked both sides - Discard  
2 free } " " "

1 free } Cooked Discard  
2 free } " " Discard

439 Continued

2 1412 blanks Extra 6" w/cd

Near Centers filed down

Use 387 60cc Var

(1 Hand / Cooked + Ck) - pulled out at hole

(2 Vynhid

(1 Hand - piece out in musc

(2 Vynhid -  
Hand to release

~~2~~ = filed down 1412

~~2~~ blanks in Bag 45CC

Your plates -

1 piece Cooked mayant

2 piece Discant

1 piece Cooked Dis -

2 piece " Dis -

2 filed down Centers 387 Var 60cc

(1 6" Red Cated Ck)

(2 Hand

(1 piece Red C 2 1/2" w/cd)

~~(1 piece Red C 2 1/2" w/cd)~~

440E

150 lbs

14mm roller

3 1412 blanks with 6" extra ✓  
various in Center -

Reg Var -

1 free Conical ok

2 free " ok

1 free " ok

2 ✓ " ok

2 = 1412 blanks 6" extra Var in ✓

Center - 387 Var

(1 free Conical some conical) nq -

(2 very hard)

(1 coated ch) lifted - NG

(2 coated ch) -

2 filed down Center - ✓

Reg Var

1 (coated ch) nq

2 free

1 free

2 free

Center nq

outside of the corner

2 filed down Center 387 Var

1 free 6" R/c ch nq

2 hard 6 " " nq

1 free 4 " " " nq

2 hard 4 " " " nq

4- plain 1412 <sup>knitted</sup> - Reg Var  
1 free slight cooked OK Counsel  
2 free not " OK  
1 free Stone fry - notched OK  
2 free " " OK  
2 plain 1412 <sup>knitted</sup> 387 Var  
1 free nearly OK Ckd in Center neg-  
2 hard Cooked red  
1 free 6" Red notched OK -  
2 ✓

387 is too thick + too high at E dges  
to work on this schedule -

## NOTICE

If 441 E had double weed  
Var (10) 6" Extra in Center  
All would have been  
OK I feel sure -  
On its Equivalent  
Could be done in the mould

441 E      200 lbs "

12 1412. Reg Var plates - 45cc  
press at 200 lbs, 14 minutes,

Fres release ~~HM~~ HM ||

~~Hard~~ ||

~~OK~~ sm

OK Corncl-Rad Center HM ||

Cooked OK ||

Cooked notched

Discard ||

10K 2 chd bad Center

1 Min + 55 Second the Varnish  
started to leave the plate

Think 2 min is OK but  
may want  $2\frac{1}{2}$  -

442 E

12 1412 blanks brushed

14 minutes at 250 pressure

Req Var plate 45 cc

free ~~HM~~ IIII

stick IIII

OK ~~HM~~

Cornel ~~HM~~ I

Discard I

Cooked Center OK I



443 E

12 1412 blanks brushed

Reg Vac plates 45 cc

100 lbs pressure for 2 minutes

250 lbs for 13 minutes

Free III III II

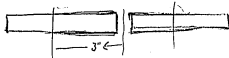
Slide -

OK III III

OK Concl II

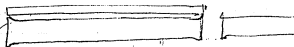
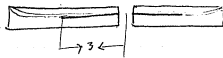
} Discard  
{ Cooked later

Moore is having Lich  
fix a mould for Hoffmann



To make blanks to do away with  
Red Cellulose —

Also fixing a Transfer mould  
holder



Edge has 020 for flat plates,

4442

Make up 200 - 45 cc

387 varnish plates

445 E

Make up 200 Req Var  
plate 60 cc

Record of 446E Transfers<sup>2</sup>

96 - OK 76 - 6 Cooked Center  
 1 left ckd 3 thin margin red on opp side  
 10 Cracked Varnish - **350 lbs**

Prints =  
 Cooked Transfers - not good enough 1

Poor print Edge ~~left~~ ~~more~~ 4H 1

Ckd 1/2" long near edge 11

Recessions don't print 4H 1111

poor print near label due to Cooked C 11

OK 1

poor print Miss's 111  
 opposite side

This is 2 min Contact  
 2 " 300 lbs

4H Var was even + no depressions  
 of Cooked Center 75% of above  
 would be OK - but think it a  
 little too low a pressure to 1 lb/cm<sup>2</sup>  
 of unscrubbed plates if we get transfer good

I think too much paper

446-E P...

Transfer 96 Reg Van plates  
 45 cc on T412 blanket brushed

Transfer on this schedule

2 minutes at 100 lbs  
 13 " at 250 "

Cool-Reg -

Print ~~use~~ use following schedule

12 at  
 2 min Contact **A** will improve  
 2 " 300 lbs thin at 500 -

12 at  
 2 min Contact **B**  
 2 " 400 lbs

12 " **C**  
 2 min Contact  
 2 " 400 lbs  
 12 " **E**  
 2 min Contact  
 2 " 600 lbs

400 lbs 2 Contact  
2 '400 lbs -

Cracked one side

Can't print nearly full print 1

p print Edge III III

pp due to Rad Cont III

Spots in plate nearly printed out III

full print II

Out of scheme edge III

long ch very scheme Edge 1

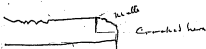
pp in Univ is both side opposite 1

This is a better lot for printing  
than 300 lbs

Uneven blanks of Var + plate  
Spots are main trouble

Cracks are due to compression  
probably was in transfer and to some  
in the blank edge

With present plates Ray Var  
500 is probably necessary



This looks that if Var free it will  
not flow out except by cracking



Reprinting a 300 pressure 446  
with 500 lbs still there is 5  
poor prints opp side - 4 Discard  
for spots not printed out  
& bad cracks not in first  
print 2.

Without have better surface  
to plates + no cracked centers  
Cannot print at 500 but  
few have good plates  
Even blanks 007 - + no  
depressions We can print  
them + only lose a poor print  
now other detail can be  
reprinted

B =

1 stick	cooked chd	1 free	cooked chd
2 stick	cooked	2 stick	"
1 free	cooked chd	1 free	Rad. chd whole
2 stick	cooked	2 free	Rad. chd small

C 1 free OK This is a  
2 free OK success on 50cc

447 E

Transfer 7 = 1412 blanks crushed

50 cc 387 Var plates

150 Uo pressure 2 min  
350 Uo " 20 min

1 free	cooked	Crushed	1 free	OK
2 free	cooked	"	2 free	OK
1 free	cooked	chd	1 free	OK
2 stick	"	chd	2 free	OK
1 free	Rad C	OK	1 free	Rad C chd
2 free	Rad C	OK	2 free	Rad C
			1 free	cooked & chd
			2 free	" " C "

4 - 387 Var plates 60 cc B

same schedule

1 High plate, use 387 C  
50 cc Var plates.

A. Hoffman 15 sec pressure blanks -

- 1 free Slight red OK  
 2 free " chd near hole -  
 1 free " R across center  
 2 free " OK "  
 1 free " OK "  
 2 free " OK "  
 1 free Cooked chd  
 2 free Cooked chd  
 1 free OK  
 2 free OK

NOTICE

Note before on req 1412 all required cooked & all cranked on hand blank nearly all OK & slight red.

B - Brass 6"

- (2 free vinylated OK  
 OK  
 (2 free. none c OK  
 OK  
 (1 free slight red (up) edge of brass OK  
 OK  
 (2 (black) none OK  
 OK  
 1 free none OK  
 2 free none OK  
 OK  
 1 free OK  
 2 free red in center chd

NOTE Brass stop Cooking

448E

Transfer - 50cc 387 plates 1412  
 blanks (brushed)  
 C = 1 High pressure holder

A 5 with Hoffman 15 sec pressure  
 1412 blanks 50cc 387 plates =

B 6 with 1412 brushed blanks  
 50cc 387 v plates with 6"  
 brass disc between plate &  
 mould.

Schedule

150 pressure 2 min  
~~500~~ " 20 "  
 350

C 1 free - Red 6" OK  
 2 black. Red 6" OK

Note

60 cc cannot be cared for by this  
 only 50 cc as 60 runs towards edge



446-

Print at 2 min Contact  
50s at 2 "

OK |

Spot dont print out ||

Discard

Cracks Discard |  
Right angles

OK print H H H ||

p print + opposite ||

Ch parallel 1/2" |

With four transfers this  
will be OK poor prints  
are only 2 edge prints

Cooked Centers show that  $\hat{\wedge}$  are due to Contact between a raised & a wild + is diff of Combination between Cured & uncured Varnish, + while it is afternoon bleed to: origin was a Cooked raise

The Father of Cracks in Music is Cooked Transfer in Early Stages,

It looks as if 4 min Contact was better than 2 because Improved % of good prints - as it takes 5 min for prints to reach 300 we should use 5 min Contact not 4

NOTICE

3 min might even be better, as blank would be softer & get more good prints

446 -

Print Req Var 45cc 14oz

4 minutes Contact  
2 " at 400

Note raise from #2 Contact to 4 Contact,

Poor print IIII  
face - poor print I  
spots not printed out IIII

Faces

Not ch'd faces IIII  
OK prints IIII

Slight Poor Print Courel IIIIIII

Ch'd I probably due to cooking I  
in mouse

Slightly poor print. I

Cracked Pp random on margin III  
not to mouse

feedstick I

# NOTICE

In Printing The Contact  
should be 6 minutes at least  
as Moore's Expts shows that  
5 min only gives  $280^{\circ}$  Fahr  
& it took 7 minutes to reach  
303,

We should have this time which  
will not change & is a constant  
for our process - Then the  
Blank will be soft enough  
to give a little under say  
400 lbs to ensure more or  
full prints, than if blank was  
colder & would not give any  
Even 1 min should be  
enough to print,

It is a question if we should  
not take pressure off  
when platen reaches 130

## NOTICE

Moore put in Some Rag transfers  
in press & got to contact  
for 3 min - part printed &  
part didn't. The part that  
printed actually flared up  
& part would not print  
certainly we don't want  
this -

So in my experimenting to  
night I am going to  
use 6 min at 100 lbs  
to stop blinking up &  
2 minutes @ 400 lbs -

Also - We have put tits on  
the print moulds & this  
expt shows they do not  
go into blank  $\frac{1}{2}$  ways at  
contact hence this has  
changed our old results  
results adversely as blank now  
now must cook up awful  
it actually pulls away from blank

449E

Print -

6 min ~~contact~~ 100 lbs

2 min at 400 lbs

6 transfers 50cc 387 var  
6" Press plates

5 transfers Hoffman  
1500 lb press on blank

1 High mould transfer

DEE OVEY

449 E

High mould 1 full Edge Crack.  
This was bad transfer to avoid with

Brass discs

- 1 CKD horribly on Edges -
- 2 No use -

## NOTICE

Putting 100 lbs pressure  
on blanks before warming  
up to  $200^{\circ}$  Fahrenheit  
gives horribly Margin  
Cracks - of is cause of  
them from high Edge which on  
pressing goes up toward himself  
least 1/2 inch 4 to outside -

1500 pressure blanks

Hopeless Margin Cracks  
poor prints also - blank  
hard

## NOTICE



WE must heat print blank  
some how to at least  
 $150^{\circ}$  Fahr all over = Edges  
particularly, before ANY  
pressure is put on otherwise  
we will have Margin &  
feed line Cracks -

WE must have Uncooked  
Transfers so whole face of  
Transfer is equally  
CURED to prevent difference  
of Contraction or Cracks

### A - Brass Discs -

- (1) free OK
- (2) stick OK
- (1) free OK
- (2) free OK
- (1) free OK but has several small Abrasive Edge fine Ck's
- (2) free OK
- (1) free OK
- (2) free 2 angle Cracks 30 deg  $\frac{1}{2}$ " long for Manque of mass  
Running into mass -
- (1) Manque Ck both ends - yellow Ck's blank finished - V-shaped
- (2) " " " "
- (1) Blended up between Edge of brass + Edge -
- (2) OK blending (checked) after this came together & needs closed Ck's

### Copper Disc

- (1) free OK
  - (2) stick - OK
  - (1) free OK
  - (2) stick OK
  - (1) free crack nearly all way round edge Copper
  - (2) free OK
  - (1) free - cracks " "
  - (2) stick - OK
  - (1) OK
  - (2) OK
- High Mould 1 OK  
2 OK

450 E

Transfer

Schedule

150 lbs pressure 2 min -  
300 " 20 min -

1412 bench & Camx

A 6 of 50cc 387 var  
with Brass plates.

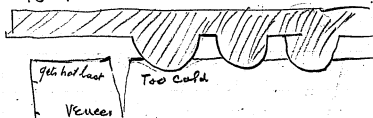
B 5 of 50cc 387 var -  
with Copper Discs

C 1 High mould 50cc 387

Schedule NG - Must have  
it heated before transfer pressure  
goes on This means a Baked  
Blank -

# NOTICE

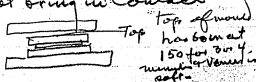
1/2 of them feed line cracks  
Examined by Micro -  
it is undoubtedly due  
to this -



Blank

It can only get hot thru  
tits, & most occur with poor  
prints, it is pressed too cold  
Must not bring in contact  
till

possibly cause  
of this cracks  
thru spot



451E

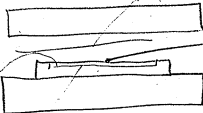
Jack Reg press  
Printed 12

100 lbs pressure 1/8 off pin  
for 3 min steam already on  
plates. ~~check~~ mould to print  
in - Think this may  
hurt pins -

Should have steam on plates  
& that then determines time  
it takes to reach 200 and  
the mould holding them  
put pressures on

Examined & found this OK

Poplar



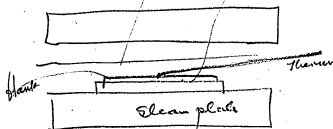
no blank-on to  
printing world

Steam off - 100° Fahr

1 min	110
2	140
3	175
4	210
5	236
6	258
7	273
8	285
9	295
10	302
11	309
12	314
13	318
14	322
15	324
16	327
17	327
18	330
19	332

End

Paper - Pellets lay on a print wheel



Steam off

100° Fahr

1 min after Steam on	106
2	112
3	128
4	148
5	162
6	195
7	217
8	238
9	252
10	264
11	274
12	281

ok to put  
pressure on



Record -

T 1 OK  
 B 2 Mangincke fine - Discard  
 T 1 mangincke fine - Discard  
 B 2 " " } Discard  
 T 1 fine " " } Discard  
 B 2 " " } Discard  
 T OK  
 B mangincke OK very fine } Discard  
 (T longer mangincke } Disc  
 B mangincke very fine )  
 (T OK } OK  
 B OK )  
 T longer long mangincke } Disc  
 B OK )  
 T OK } Disc  
 B very fine mangincke )  
 T OK } Disc  
 B longer mangincke )  
 T 1/2 hour + very very fine mangincke } Disc  
 B OK )  
 T OK } Disc  
 B longer ~~fine~~ mangincke )

Top Bottom  
 7ok 3ok  
 Topck Bottomck  
 Longe fine Longe fine  
 ||| |||  
 ||| |||

Probably not hot enough - we try  
 a 7 min heat -

452 = Purifying 1412 Blends  
 Special Experiment  
 12 Keg Transfers ±  
 Schedule -

Start with no steam Room Temp

5 min heating - no contact  
 (Therm between ballout top mould on side  
 showed 180°)

1 minute 100 lbs pressure  
 2 " 600 " "

Cool - when Therm only  
 between mould reached  
 125° Fals which took 4  
 min - took off pressure -

Note this

(T 17 poor print feed line ck } opposite.  
2 B "

(T 17ed line - small hole - Margin check print  
B " " " " " print }

(T front print / opp Extreme Edge cks  
B

(T covered blank 1/8" edge yellow, also fine ck possible  
B OK at another point

(T many margin ck  
B front margin point

(T OK OK  
B few long margin cks

(T Extreme Edge cks - front margin  
B margin cks - feed h. ck

T several margin cks Extreme Edge

B Bleeds - feed line - margin ck

T OK OK  
B short Extreme Edge Margin ck

T very small Extreme Margin ck

B Extreme margin ck bleeds on

T OK OK  
B Extreme Edge around Margin cks

T OK trace a mark  
B margin cks

100%  
Bad

Top OK Bad  
||| 1

452 1/2 E  
Dup of 452E Except heat  
7 minutes heat before contact,

Evidently this theory does  
not account for Edge Margin  
or feed line cks -

### NOTICE

New theory is that there is a  
low placed between start of music  
+ this edge on Transfers,



the pressure on  
high edge cracks  
the low

(Record)

OK Corner  
" " " "

[T OK  
[B OK

[T  $\frac{1}{2}$ " from Margin  $\frac{1}{2}$  inch. ) Corners

[T OK.  
[B from feed line -

[T OK  
[B  $\frac{1}{2}$  from Edge very fine crack Corners

[T OK  
[B  $\frac{1}{2}$  from Edge  $\frac{1}{2}$  inch Corners

[T OK  
[B OK

[T OK  
[B 2 feed line OK -  $\frac{1}{4}$  in. 2  $\frac{1}{2}$  from edge Corners

[T OK  
[B feed line 1 - 2 parallel margin ok  $\frac{1}{2}$  from Edge

[T margin ok  $\frac{1}{4}$ " from inside margin 6" ppmt  
[B 1  $\frac{1}{2}$  from Edge fine

[T OK  
[B 2 feed line ok

[T 2 feed line 3 at different point through  $\frac{1}{2}$  from Edge  
[B OK

[T OK  
[B 3 feed ok

452  $\frac{3}{4}$

Dup of 452

12 1412 Transfer Req Var

Edges of Transfers filed down  
flat from Edge  $\frac{3}{4}$ " back

Same Schedule as 452 E

NOTICE

Cornel

Seems to have

Merit - think the run into one Bad

Think feed line Crack could be stopped  
by this

$\frac{1}{2}$ "  $\frac{5}{16}$ "  $\frac{1}{8}$ "  
press

452 <sup>3/4</sup>

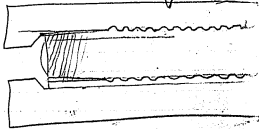
3-1-16.

Notes. I note parallel margin cracks  
are at the edge between good margin  
polished and the dull scraped edge  
where press is not enough to polish it

In fact right at the juncture between  
polish + dull a new line of feed line  
cracks shows only a shade larger than  
music feed line

It is probable that the bowing  
out of blank plays a part

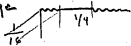
Our moulds should taper  
in + not out as most of them  
now do



When expanding + flex is held by  
the taper + on contracting is free

We have now 6 music moulds  
that Taper inwards towards  
blank 003.

Also two music moulds with  
feed lines or rather scratches on  
Edge



The extra groove is to hold Veneer  
in position when blank expands  
& prevent cracks, afterwards Edges  
off -

12 1412 blanks <sup>Transfer</sup>

005 inches  
in Center layer  
down till at 3" from  
Center it disappears -

C. 1 } Very poor print 005<sup>n</sup> thicker on one edge than other  
 2 } no cracks Scraped D 1412

( 1 } poor print no cracks	1 OK
2 }	2 OK
1 } poor print "	1 OK
2 }	2 OK
1 OK	1 OK
2 1 feed line crack	2 feed line
1 OK	
2 OK	75% OK
1 OK	
2 1 feed line crack -	

A 1 OK 100% B 1 OK 100%  
 2 OK 2 OK

452 EA 3-1-16 -

Start with Cold press 100° day  
 6 min heating no contact

1 " at 100 lbs pressure  
 2 " at 600 "

Cool until 125° Fahr is  
 reached take off pressure  
 & remove.

A Use 1. Extra feed line at  
 Edges, Scraped 1412 blank

B Use 1 sets moulds padded  
 to taper towards blank  
 use 1412 blanks Scraped  
 Edges

C 6 Strait Edged tracked moulds  
 use 1412 Scraped blanks

D 4 Reprints

A (1 OK 1 OK (1 OK (Cooked Center left side)  
2 OK 2 OK 2 OK

B  $\frac{1}{2}$  OKs 100%  
2 OK

C 1 "Edge  $\frac{1}{8}$ " from Edge 1 big parallel Ok Center Mission  
2 " " " 2 Margins Ok  $\frac{3}{16}$  from Edge  
1 OK 33%  
2 OK

D 1 Corners  $\frac{1}{8}$  from edge Corners 1 OK 1 OK  
2 " " 2 Edge Ok Gray 2  $\frac{1}{8}$  Edge Ok  
Corners

E 1 OK 1 OK 100%  
2 OK 2 OK

452 B

Duplicate 452 A.

Scraped 1412 Blanks

A- 2 Records with padded  
moulds to taper towards blank

B- Tracked edges

C 4 Reg moulds-

D 3-tracked moulds with  
1 label

E 2 2-tracked moulds with  
2 labels on a side

Notes =

Whatever is why of thickness of  
Varnish in Center Area of  
Transfer must be displaced.

hot This heats Varnish  
also in displacing a large  
quantity of Varnish requires  
pressure & this swells blank

Both together tends to strain  
blank & Varnish make

Cracks etc - The blanks  
should fit the Varnish  
or a 6" piece used



6 mould proper brushed up

(1) - OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK

(2) — 20 mould, if line clear — may not be padded enough  
or the blank is scraped too deep.

(1) OK 22 mould blank not good surface blank loss

(1) OK  
(2) — feed line clear. No q = cooked in print or in transfer

(1) OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK — 24 - Silver elements Common  
only a stain

(1) OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK

Every one a full black print to  
the edge notwithstanding scraped blanks

452 EC

Dup 452 EC

12 1412 blanks brushed +

transferred, then scraped,  
Moore #9 transfer schedule.

12 Padded Moulds -

6 mm heat no Contact

1 " 100 lbs press

2 " 600 " print =

Coal to 125° Fahr arcuase

**NOTICE**

Without Care on part of  
The Man 6 minute heats up, because  
they either steamed with warm  
press or exceeded 6 minutes  
5 min is probably safest.

It oxidizes the mould in spots, blue +  
yellow may have to have slight Contact

This is Record  
of 454-4 is print

(1 OK  
2 OK

(1 OK  
2 OK

(1 OK  
2 OK

(1 OK  
2 OK

1 OK  
2 OK

1 OK  
2 OK

1 OK  
2 OK

1 OK  
2 OK

1 OK  
2 OK

1 OK  
2 OK

1 OK  
2 OK

1 OK  
2 OK

1 OK  
2 OK

6 minutes  
too much bluish  
5 is safer

1 OK - Cooked up by cards  
2 OK in printing

with spot

1 Crack checks from house  
2 OK other top etc 2/15/60

9/6 OK

2 good line etc. to long Discard  
ALL PERFECTLY FILLED TO EDGES  
+ Fine Edges

The above is record of  
454-4 is a Reg transfers  
Printed with  
14 1/2 blanks No 9 marks  
Schedule -

+ Not scraped

454

Prints = 1472 blanks on  
4.500 Reg Var  
Not scraped

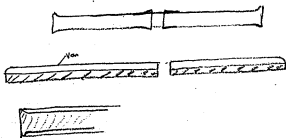
A 1/2 Would (tapped by passing  
A + on B  
B 1 with high C. 1/2 -

3 min + 1/2 - 100 lbs -

12  
**NOTICE**

We should put 150 old blank  
Records with fine  
line Cracks in only  
+ set aside for time  
to see if these  
Cracks develop

1488 Blank -  
Special Blank made in  
Mould with filet to fit var.  
on a flat var plate



1488 Blank - using 1412 Powder

- free  
 1 | Slight red not cooked 3" out from hole in spot  
 2 | Cooked end one spot 1 3/4 from hole

High Center Mould

- 1 free OK Tinge red end 6" dia  
 2 free OK

Steel

Steel

- 1 free OK  
 2 free OK  
 1 OK  
 2 | Cooked up Edge of steel dia OK  
 1 free Cooked Ch " " red only 2"  
 2 free OK 1" around hole, whole of 6" red  
 1 free Red at hole 1/2 red out at edge of steel some all over dia  
 2 free Red in spots whole of steel  
 1 free Red at hole 1" red in spots, area of steel  
 2 free " " " "

- 1 free Chd at edge of steel  
 2 free red light over area of 6" steel  
 1 free Red over nearly all 6" steel faint  
 2 free " " "

Brass

Brass

- 1 - stick Red nearly over whole area 6" brass  
 2 - Sludged nut much red,  
 1 free - Red. spot beyond 6" cracked  
 2 free - Red bar - 7" dia -

Evidently 387 is a bad  
 Running Van & out  
 flow in transfer

453

- 12 Transfers 1412 breaks  
 50 cc 387 Van plates  
 3 min Contact 100 lbs  
 12 " " at 2:30 " "  
 8 Steel Discs (copper)  
 3 Brass " (not capped)  
 1 High Center Mould

Brass

- 1 free Red 6" faint - at edge 6" cracked  
 2 stick - Red in the 6" area faint

~~Notes~~  
~~453~~  
~~Notes~~

(1) OK  
(2) OK  
(1) OK  
(2) OK.

(1) OK  
(2) OK

(1) OK  
(2) —

(1) OK  
(2) OK

(1) OK  
(2) OK. 2 OK 1/2 in Edge but OK

(1) OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK

(1) OK  
(2) OK

possibly feed line due to  
lacking out at 125 Tolu  
as Blank Cook later  
than Venice

Special mould-fed line - slight pp there  
but Edge is perfectly finished

91.6%

Best 10% of full size  
in process

Edges fine - perfect,  
Prints full right up to Edge

455E Transfers not scraped  
series Print =

12 1412 blanks - Reg Var 45cc  
#9 Moore schedule - used

Will print with same schedule  
as as 454E but change  
heating times. Padded Moulds

note change to 4 from 6 to stop blurring

4	minutes	heat, no contact
1	"	100 lbs pressure
2	"	600 lbs "

NOTE  
Reduction from 6" min  
heat is to stop cooking

It is OK - Hereafter,  
Make schedule like  
above - its safer +  
is good -

456

- 1 Free Red 6" cooked in 1" spots  
 2 Free " 6" not cooked

- (1 free Cooked Cracked very bad  
 2 free " " "

- (1 /  
 2 Stick hand " " } opposite low spot in blank  
 6" from hole 1, Cracked

- (1 Free Cracked Chd.  
 2 free Red - 6"

- (1 free Cooked  
 2 free Red 6"

- (1 free Cooked Chd } opposite Blank?  
 2 free " 2 spots

- 1 free Cook 6" Chd  
 1 free Red  
 1 free Cooked - Chd Bad -  
 2 free " " "

- 1 free Cooked Good Chd  
 2 free " bad Chd

- 1 free Red 8" } principal red spots opposite  
 2 free Red 6"  
 2 free Red 6"  
 3"

1  
 2

456E

Transfer 12 1412 brushed  
 6 plates with 45cc 387 Var  
 plates -

3 min at Contact 100 lbs -  
 12 " at 300 lbs -

Free 1 Red 6" no cook  
 Free 2 " 6" " High Center

Note 387 dont flow well +  
 meat have higher pressures  
 will transfer another lot  
 at 300 pressure for  
 15 min see 358E

This is my ~~own~~

guess 387 50cc

1 020

2 014

3 010

4 014

5 014

6 flat.

4 7/2

Reg Var 45cc

1 040

2 015

3 040

4 020

5 020

6 007

020

Should make allowance  
for thin varnish of 4 to 008

457E

Transfer 6 blanks 1412

One side only with 45cc Reg  
Var ~~9~~

6 plates 50cc 387 Var

One side only with

Moore #9 schedule

3 Minutes Contact 100 lbs -  
12 " at 300 lbs -

← Moore has not got his gauge to  
Caliper will do it in the morning

458

High Center

1 1 1/2 Red

2 not red

1 1 2 1/2 red

2 ditto opposite - | no cook OK

1/2 Re 6" others in Cooked mg

1 OK

2 OK but crumbled edge

1 chd edge crushed blank <sup>very little red</sup>

2 " " "

1 crushed blank

2 " "

1 OK 2

2 OK

1 2 1/2 red 3

2 OK

1 Bad Cooked Center

2 6" Red

1 6" Red

2 6" Red <sup>cooked</sup>

1 Crushed blank

2

1 2 1/2 Red

2 2 1/2 Red

458E

Dup 456 - 1412 blank  
387 - 45 cc Val

using 15 min 300 lbs

All free release

This schedule on 1412  
blank is NO Good -Crushes blank when too  
cold -Must heat up before  
pressurize  
No q <sup>release</sup> is best so far



Perfect print means all parts  
except there is on some 10% of a loss  
to fill in missing

(1 OK perfect print

(2 OK

(1 OK perfect print

(2 OK

(1 OK perfect print

(2 OK

(1 OK perfect print

(2 OK

(1 OK perfect print

(2 OK

(1 OK perfect print

(2 OK

(1 OK slight poor print

(2 OK

(1 OK perfect print

(2 OK

(1 OK perfect print

(2 OK

(1 OK perfect print

(2 OK

(1 OK perfect print

(2 OK

(1 OK perfect print

(2 OK

cracks 1/8" from edge OK

NO 21 X mould  
5 samples OK - Report shows it in  
mould

100%

Note: The fill of the music adjacent to  
plain margin is not perfect. This is due  
to latex moulds will probably give a  
smoother surface on start as the blank

459E

Print

Dup of 453E Req Van 45cc

is not pressed into the recess so hard  
the fill is 90%

Note 21 mould has a label,  
but 22 opposite it HAS NO  
LABEL thus preventing  
pressure on blank & filling in  
most cases. In 3 runs. Twice  
it made a poor print

1 label is equivalent to  
1/2" square 1/10" thick  
Absence of label prevented  
the flow of just that much  
of the blank

(1 OK  
2 OK

(1 OK  
2 OK

(1 OK  
2 OK

(1 OK  
2 OK

(1 OK  
2 OK

(1. ok margin OK  
2 seems to be cooked up but check it OK.

(1 Edge clear within 1/8 of margin) Discard  
2 OK

(1 OK  
2 OK

(1 lat. feed line clear - big ones  
2 OK

(1 OK  
2 OK

(1 OK  
2 OK

(1 OK  
2 OK

good Edges

~~83~~

75% ok

or with 1 Council

833%

OK Edge again. To find dia. but in moulds 4 years flat or even higher.

59 E

Reprinted

Same Schedule

21-22 mould made a poor but  
OK print also in this —

Note = Either a different  
Schedule must be  
found or they must  
be reprinted on same

moulds - or all

the moulds must  
have same taper of high  
% is to be obtained.

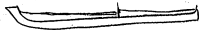
Note try flowing plates  
that have 2 threads cut in face  
1/2" deep - 150 threads inch  
to see if it will stop flow  
to edge & also make a better  
transfer if not low flow even

Note -

Flaw a plate



after flowing set this in center  
until dry 10 or 15 min -  
then pull it out, make  
double draw -



(✓ OK Cooked up 3" circle • 17

(1 OK

2 OK

(1 OK

2 OK

(1 OK faint print, in Micro 3/10 offfill - OK

(1 OK

2 OK

(1 OK print too poor Discard, in inner music next label

(1 OK

2 = poor print, <sup>Discard</sup> fill in inner music next label

(1 OK

2 OK

(1 OK

2 OK

(1 OK

2 OK

(1 OK

2 OK

(1 OK

2 OK

83.3%  
100% of poor prints  
not included

460-

Dup of 455 E

4<sup>th</sup> Duplication 91.6

(Even 4 min heat allows some blanks to Cook up, especially since we have tapered Edges + The lower face is probably the one that Cooks

This probably Cant be helped if we lower to 3 minutes liable to have trouble, = might help by drying our weld Varnish more -

Note poor print is next to label in Van - probably due to the 2@003 label.

Afterwards found press not working well -

461

- (1 OK
- 2 OK
- (1 OK
- 2 OK
- (1 OK
- 2 OK
- (1 OK
- 2 OK
- (1 OK
- 2 OK

heater -  
low steam inlet to  
plates found out of  
order

(1) poor print both sides opposite 13+14 Discard  
(2) Discard

(1 OK

(2 = poor print edge of inner smooth part but OK

(1 OK

(2 feed line crack, Discard, can see coated transfer spot

(1 OK

(2 OK

(1 OK has faint print near margin but worst sound

(2 OK

(1 OK

(2 OK

Wetmore, heat

91.6 for track

83.3%

91.5 if one poor print left out

461 F

Dup of 455 -

But change schedule to

3 minutes heat

1 min at 100 lbs

2 " 600 lbs

Cool to 125° Fahr

This schedule has no

cooked up -

probably 3 min at

600 would fix the

poor prints -

- (1 OK front PP OK micro  
2 OK
- (1 OK front pp micro ok  
2 OK
- (1 OK front micro ok  
2 OK " micro ok
- (1) poor print discard  
(2)
- (1 OK lineck Discard  
2 OK
- (1 OK } Dont print out dents in plate Discard  
2 OK }
- (1 OK } Dont print out dents in plate Discard  
2 OK }
- (1 OK front print ok  
2 OK
- (1 OK  
2 OK
- (1 OK  
2 — Cant print out dent
- (1 OK  
2 OK
- (1 OK  
2 OK

91.6%  
for cracks

67%

Press working  
had paper  
checked

462 E

Dup of 455.

3 minutes heat - no contact  
1 " at 100 lbs  
note. 3 " at 600

It is hard to understand this  
it should have been better for  
poor parents, but it was worse  
Possibly mistake at press  
or some skip somewhere.

Note 455 + Duplicates  
has transfers, picked from  
those Cooked + too much  
Red Centers —

(1 OK 90% fill  
2 OK 90 "

(1 OK 90 "  
2 OK 90 "

(1 OK 95 "  
2 OK 100 "

(1 OK 95 "  
2 OK 100 "

(1 OK 95 "  
2 OK 95 "

(1 OK 90 "  
2 OK 90 "

(2 Very poor print 2X<sup>1</sup> no print restriction

(1 OK 15% spots  
2 OK 15% "

(1 Very poor print bare spots

(2 Very poor print

(2 Very poor print

(2 Very poor print - Feed line OK

Bottom plates

It was in the press  
See 464 100% OK + Dup

463E

Dup of 455

3 minutes heat - no contact  
1 " at 100  
2 " at 700

Bottom of press plates  
must have water in mat  
blown out hence low  
temperatures and poor prints  
Must Duplicate this  
+ Be sure bottom  
plates have no water in  
Moore just found out press got  
haul seal got in -

(1 OK 100% fill -  
 (2 OK " "  
 (1 OK 100% fill  
 (2 OK 92% fill  
 (1 OK 95% " "  
 (2 OK 100% fill  
 (1 OK 100% fill  
 (2 OK 100% fill  
 (1 OK 100% fill  
 (2 OK 100% fill  
 (1 OK 100 " "  
 (2 OK 100 " "

(1 OK 100% fill  
 (2 OK 100% fill  
 (1 OK 80%  
 (2 OK 80%  
 (1 OK 100%  
 (2 OK 100%  
 (1 OK 100%  
 (2 OK 100%  
 (1 OK 100%  
 (2 OK 100%  
 (1 OK 100%  
 (2 OK 100%

It looks as if -  
 This schedule is OK

we keep our presses

right -

WE should now work on  
 transfer of various plates

13+14 - 3rd time

100% OK

464 E NOTE

This is done on  
 another press  
 as my one got  
 checked in steam  
 pipe -

Dup of ~~463~~ 463.

3 minutes heat - no Contact  
 1 " at 100 lbs  
 2 " at 700 lbs

But this time we will  
 make sure water is not  
 in lower 6 plates of  
 press hence temperature  
 will be more even

later found press of  
 piece of scale or something in  
 pipe - will try another  
 press -

This shows new Reason  
 will detect a bad press  
 also detect a bad mould. 13+14  
 has given a poor print spot 3 times.  
 in ~~another~~ ~~time~~ OK



Now  
Transfers

- (2) free no red  $\bigcirc$  high center mould holder  
 no red  $\bigcirc$
- (1 free no red  
 2 Hand no red -  $\frac{1}{4}$ " pull out near edge defect in transfer plate OK
- (1 free no red OK  
 2 free no red OK  $\bigcirc$
- (1 Red 3" out from center  
 2" Red 6"
- (1 Red 6"  
 2" Red 6"
- (1 Red 6"  
 2" Red 6"
- (1 free Red irregular with  $1\frac{1}{2}$  inch edge  
 2 free Red "
- (1 free Red 2 spots 1" from edge been omitted  
 2 Red 1" " " format other points
- (1 OK no red  
 2 OK no red free  $\bigcirc$
- (1 free Red 6" irregular  
 2 free Red 6" with 1" of edge
- (1 free - not red } shown block wavy in 2 spots  
 2 not red }
- (1 free no red  
 2 free Red irregular  $4\frac{1}{2}$  inch
- (1 free Red irregular 5 to 6  
 2 free Red " " "

Not promising  
 something must be done with  
 Varnish

## 465E Transfers

Transfer 12 blanks 1412 covered  
 that are high in the center

Use Reg 45cc Varnish  
 plates -

3 minutes at Contact 100 lb  
 12 " at 300 lb.

High Center Mould

- (1 free OK
- (2 free OK
- (1 free OK
- (2 free OK
- (1 free OK } Broken Edge Crushed no red
- (2 free OK } Broken Edge Crushed no red
- (1 free OK } Full over 3/4 of Edge - 98% for red
- (2 free OK } Full over 3/4 of Edge - 98% for red
- (1 free OK } Crushed blank 95% quality of red
- (2 free OK } Crushed blank 95% quality of red
- (1 free OK
- (2 free OK
- (1 free OK
- (2 free OK
- (1 free OK } 90% red - red
- (2 free OK } 90% red - red
- (1 free OK
- (2 free OK
- (1 Cooled - red
- (2 Cooled red
- (1 Crushed blank OK for red
- (2 Crushed blank OK for red

No Prints -  
Transfer not practicable

466E

Transfer


Transfer 12 blanks crushed  
1412 that have only been  
pressed 600 lbs -

Use Reg 45cc Varnish plates

Schedule -

3 min Contact at 1000 lb.  
12 " at 300 lb.

NOTE Must have blanks  
Made at 1000 lbs as now as  
The flow of Var softening of  
blank Crushes it - "

- fine Edge Cks mostly angle  $45^\circ$   
to the Center 
- (1 no red)  
 (2 no red)  $\frac{1}{8}$ " deep radial cracks about  $\frac{1}{2}$  apart  
 + spaced along Edge 2  $\frac{1}{4}$  inches
- 1 OK no red  
 2 - radial Cks at Edge tending to merge also Var. no red
- 1 OK no red  
 2 - Most of radial edge Crap 50 to the inch
- 1 no red } OK  
 2 no red } OK
- 1 no red } OK  
 2 no red } OK
- 1 no red Has 3" long at Edge fine Crap.  $\frac{1}{8}$  to  $\frac{3}{8}$  long  
 2 no red OK
- 1 no red } OK  
 2 no red } OK
- (1 no red } OK  
 2 no red } OK
- (1 no red along both Extreme Edges for 3 or 4"  
 2 no red Correlation 45 deg about Center
- (1 no red) - 45° crack  
 2 no red) - OK
- (1 no red) 45° Correl at Edge  
 2 no red) OK
- (1 no red) - Edge cracks  $45^\circ$   
 2 no red) OK
- $33\frac{3}{8}$

## Moore. Transfers

By mistake Moore gave Transfer man the Print Schedule - old one - there is the result -

2 Min in Contact  
 2 " 200 lbs  
 3 " 600 lbs -

1412 blank, Reg Var 45cc

1 stuck  
 11 free

This makes nice blank but the uneven Varnish is soaked in the blank and off sight. The Var is cracked & due to greater pressure -

This shows Moore 9 is more near the proper schedule to bring out defects of Blank & var & produce a good Transfer - The Var is not cured & is probably still somewhat rotten hence cracks -

(1) 4 in - Regular plates here } both sides Cooked red  
(2) 4 in - C

(1) - 6" slight red  
(2) 6" very slight red  
(1) 6" very very faint red  
(2) 6" " " "

100% ok

(1) no red  
(2) no red  
(1) no red  
(2) no red

low edge plates

(1) Band Cooked  
(2) " " "

Regular

(1) Band Cooked Red  
(2) Cooked Cooked

(1) Slight red  
(2) - other side not filled middle

(1) 6" red  
(2) 6" low red

(1) Cooked - low  
(2) Cooked " "  
(1) 6" Red  
(2) 6" Red  
(1) Cooked low  
(2) Cooked low

100% Bad

467 E

Transfer 5 1412 blanks brushed

Use The low Edge 010 plates

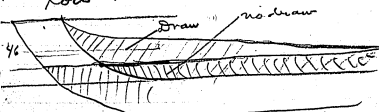
Also 7 Blanks 1412 with

Req 45 cc var -

Schedule

3 min at Central 100 lbs  
12 " at 300 lbs

Note great advantage of a  
low rim. —



Transfers 8 Blanks 45 cc Reg Var

Reg Little Red ok III	Red moderate III	6 Red III	Very Little Cooked III	Cooked Cnd III	OK III
Free MIII all after edge buff & 200 lb press	Mannan Cts 30-40 mg I			Edged Buff Impurities Cnd I Dis	OK MIII

These are a decided improvement over the 6 1/4 Edged plates - all free release - Very little Var squinted over Edge several times less than with the other plates, no yellow. The red + cooked is 50% less than Regular. A little more improvement will do the job - Think blank should be 1/2 smaller on a side.

4 with 50 cc Reg instead of 45 -

Very slight Red II	Moderate I	6 Red I	Very Little Cooked I	Cooked III	OK III	Cooked Cnd II
all free release						old method II

Being 5 cc thicker the Centers are not so good, as 200 lbs does not force Var down at Edges & perhaps also the thickness the Var the worse it creeps to Edges -

468E

Transfer 12 1412 brushed blanks  
Using 010 var plates reg var 45 cc

3 min contact 100 lbs  
12 " at 300 lbs

468EA Press at 100° Fahr  
Print them all with Padded moulds

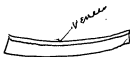
3 minutes heat, No Contact  
1 " " Contact 100 lbs  
2 " " 700 lbs -

Cool to 125° Fahr

50 cc -	Prints -
1 OK slight cnd OK	1 OK
2 OK " " OK	2 OK
1 Very poor print Edge	1 OK
2 both sides	2 1/2 hrs ch.
1 OK	1 OK
2 OK	1 1/2 hrs ch.
1 Cracks (on red) near label	1 OK
2 OK " " " "	2 Pass print.
	1 OK
	1 1/2 hrs ch.
	1 Poor print

Var  
15 min  
OK II  
Dis MIII -

#	1	-	000	-
	2		008	dished
	3		000	"
	4		015	"
	5		027	"
	6		015	"
	7		027	"
	8		015	"
	9		023	"
	10		034	"
	11		022	"
	12		014	"



Set aside in Chemical room  
 top of Book Case -  
 3-6-16 -

469E

474 Schedule -

Transfer # ~~9~~ ~~schedules~~

12 1412 blanks - on WET varnished  
 on one side - put transfers  
 on varnished side -  
 010 plates

Req Var without Sandrac  
 for Dish test

Ordered Enough Var for 70 plates

All free release -  
 which shows at least that without  
 Sandrac & low run plates  
 Sandrac is not necessary  
 to get free release -

We are transferg 12 more  
 Req new ~~schedules~~ 180° Fahr at  
 Contact see 475 EX further along







3-5-16

Our failure to duplicate with same % of is that the rise in temperature of the press varies too much. We cannot use time as an indication of temp -

Must use a Thermometer + when it has reached to specified temp the 100 lbs pressure is put on

Even this is faulty for if we reach the specified temp too quickly. The difference of temperature between bottom + top is too wide hence we shall have to attain safety by throttling the steam + give it more time to reach the proper temp. If 4 minutes will do it at full steam it will be better to take 6 or 7 min or even 8. So there will be only few degree difference between top + bottom otherwise, blanks will receive veneer when definerly expanded + it will cause one veneer to flow more than the other bringing in cracks.   
 all

30" pressure of steam	278° Fahr
40 "	286 "
45 "	292 "
50 "	297 "
55 "	302 "
100	337
110	344
120	349

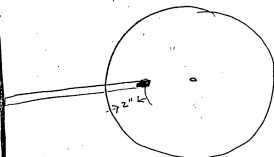
Preliminary test to prove concordance of thermometers gives following for rise of temp with Thermo (B) right on coils of platters + not over steam. 120 lbs - 15 sec valve open 40 lbs

in platform	1 min	75 lbs - 1 1/2 %
Start	88	Steam Pressure
1 min	140	15 sec 40 lbs steam
2 "	210	1 min 75
3 "	260	1 1/2 min 80
4.6 sec	300	2 min 100

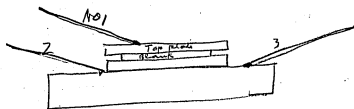
Can keep it at 100 by valve, WE permit at 100 lbs

Top plate	Alloys	Top plate	Top plate
15	80	80	15 134 289
30	80	81	30 136 290
45	82	85	45 138 291
ONE	84	95	NINE 139 292
15	85	105	15 140 293
30	86	125	30 142 295
45	87	130	45 144 296
TWO	88	143	45 146 297
15	89	157	15 148 298
30	90	170	30 150 299
45	92	180	45 151 299
THREE	96	193	ELEVEN 152 300
15	98	205	15 154 301
30	100	212	30 156 302
45	104	222	45 158 302
FOUR	110	228	TWELVE 160 302
15	111	234	15 162 302
30	112	241	30 164 302
45	114	246	45 166 303
FIVE	115	252	THIRTEEN 168 304
15	116	256	15 169 304
30	118	260	30 170 305
45	119	265	45 172 306
SIX	120	268	FOURTEEN 174 306
15	121	270	15 176 306
30	122	273	30 178 306
45	124	276	45 178 306
SEVEN	126	279	FIFTEEN 179 307
15	128	281	15 179 308
30	129	284	30 180 309
45	130	286	45 182 309
EIGHTH	132	288	SIXTEEN 184 310

Experiment No 2  
 Steam put right on  
 Thermometer # 1



on Top plate,

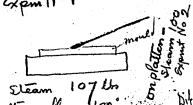


The temperatures of 243 are well  
 3 to 5 deg  
 This Experiment shows we cannot work  
 without contact.

Moores Previous Expt No 1



Steam on	101 lbs
Steam off	100° Fahr
1 minute	106
2 "	112
3 "	128
4 "	148
5 "	162
6 "	195
7 "	217
8 "	235
9 "	252
10 "	264
11 "	274
12 "	281



Steam on	107 lbs		
Steam off	100°		
1 min	110	95	15
2 "	140	143	7
3 "	175	193	14
4 "	210	228	14
5 "	236	252	16
6 "	258	268	10
7 "	273	279	6
8 "	285	288	3
9 "	295	292	3
10 "	302		
11 "	309		
12 "	314		
13 "	318		
14 "	322		
15 "	324		
16 "	327		
17 "	327.5		
18 "	330		

Contact 75° Fahr difference  
between platen & 2 faces of blank  
approximately

3 min with 30 lbs steam then 100 lbs

Start	15	80	15	294	15	30
	30	84	30	298	30	45
	45	92	45	302	45	15
	1	102	8	304	15	30
	15	114	15	308	30	45
	30	126	30	310	45	15
	45	138	45	312	15	30
	1	148	9	314	30	45
	15	158	15	316	45	15
	30	168	30	318	15	30
	45	176	45	319	30	45
	3	184	10	320	45	17
	15	190	15	321	15	30
	30	197	30	322	30	45
	45	206	45	324	45	18
	1	216	11	325	15	30
	15	222	15	325	30	45
	30	232	30	326	45	19
	45	241	45	326	15	30
	5	248	12	326	30	45
	15	256	15	327	45	15
	30	262	30	327	15	30
	45	268	45	327	30	45
	6	272	13	327	45	20
	15	278	15		15	30
	30	282	30		30	45
	45	288	45		45	21
	7	292	14			

The blank used was flattened up to the 11th form gas contact  
in blank - pressure 1 lb and 2 places 1 lb 1 on the other side of contact  
in blank - note a little lower - 3 notes till one only 1/2 improved  
Couch

Expt 1 shows that 200 deg on platten  
it is nearly safe if not safe to print —

Platten Weight 125 lbs Each  
Moulds " 16 lbs Each Top & Bottom  
Total 141 lbs —

1551 lbs total 19.6 lbs per square inch  
of blank

Tests to determine when blank is soft  
enough to be safely impressed without  
harm. The only weight is 11 platten  
& 11 moulds — The blank is on the  
bottom platten. The temp is  
measured on the inlet side of steam  
— on the face of the platten.

No 1  
200° Fahr — Required 2 min 53 second  
The record shows softening. The area  
nearly if not wholly impressed —  
One side shows nearly all over  
an imprint of tops of the waves

Note — On Cooling the 1st min it  
was 210 214 5 194 2 min 168 —  
no blister

No 2

Platten at 220 — required 3 min 17 sec  
in cooling went up 10 deg higher  
This shows considerable more print think  
that it is soft enough — seems to have a  
blister in 2 places but they are faint as  
probably the were sunk in considerable  
when they raised —

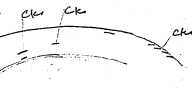
### No 4 Experiment

80 start

82  
89  
99  
111  
123  
136  
148  
163  
178  
192  
206  
218  
229  
240  
249  
258

60% of a fill - very little pressure  
will fill it  
Best fill of all, but some Edge  
Cracks, some within 1/8 of music  
This is Bad.

4 mm 4 sec  
c/c



Some on one side some on  
the other -

8° higher on cooling

Short Cracks in every place  
Except Edge parallel Cks are  
probably due to cooking up  
+ cracked by gas pressure  
the raise disappears on purging  
but the Cracks remain

### Moore's readings on Experiment

No 1

80° start

82  
88  
98  
-109  
120  
134  
146  
-158  
172  
194  
196  
200

2 mm 53 sec

No 2

80 start

88  
98  
108  
117  
128  
139  
152  
164  
176  
188  
199  
210  
220

3 mm 15 sec

No 3

80° start

88  
98  
109  
121  
134  
148  
162  
177  
196  
196  
204  
214  
228  
238  
240

3 mm 25 sec

on cooling went up 250

No 3 Experiment does not  
print much better than No 2  
but it raises up very bad  
showing it is too high  
temp to be safe as pins  
are too far away

## Duplicate of No 4 Experiment

89 <sup>slant</sup>

87

99

113

128

143

158

174

188

204

217

230

242

252

260

full about same but its  
Cooked up & it appears as  
if the better full on No 4  
is due to pressing up  
the low parts again  
More & given full by  
3 min 30 sec gas pressure

Edge Crack

All these tests on temp  
Printing & temp Curves  
Made on Sunday  
No other processes  
Running  
Padded Moulds used

45

Top.

(1 OK  
2 OK

bin) blank - not full enough to 60 OK:

(1 OK  
2 OK

11

95% filled

(1 OK  
2 OK

95% filled

(1 OK  
2 OK

filled except faint dent

(1 OK  
2 OK

95% filled

(1 OK  
2 OK

full

(1 OK  
2 OK

full

(1 OK  
2 OK

1/2 in mangonick's edge out

(1 OK  
2 OK

full

(1 OK  
2 OK

95% filled

(1 OK  
2 OK

filled

(1 OK  
2 OK

poor print in spot

(1 OK  
2 feedline 12 min)

91-6%

83.3 of Top can be reprinted.

472 E

Req high ~~filling~~ plates

12 prints from 1412 brushed  
blanks, Req 45 cc Req Var  
Picked apt. no red or cooked  
Cents - 100 lbs steam

Print Contact till  
Thermometer reaches

200 degrees fahr  
then 1 min at 100 lbs  
2 min at 700 lbs

Padded Moulds used

Steam dropped so could get 100  
lbs - got to 284 7 on plate then,

When put it at 100 lbs +  
200 deg it was 3 min + 4 sec  
to get to 200° fahr

This is OK =  
Make several Deep



473E

Baking 100 1412 blank  
brushed 5 hours nat.  
to exceed 125° to  
reduce Cooking & gas  
pressure but not  
to harden weld var

Edges fine - no squint at all. no yellow -

(1 Free OK  
2 Free OK

(1 Free OK slight hinge rad. 3" around hole  
2 Free OK

(1 free OK  
2 free OK

(1 free OK  
2 free OK

(1 free OK slight hinge 3" around hole  
2 free OK

(1 free OK  
2 free OK

(1 free OK  
2 free OK

(1 free OK  
2 free OK slight sign Cook 2" around hole

(1 free OK  
2 free OK very slight rad 1" around hole

(1 free OK  
2 free OK

(1 free OK  
2 free OK

(1 free OK  
2 free OK very slight rad 4" around hole

The free release is due to low rim plates, possibly some to plates being quite cold -

May these not be OK because they are Cooked up or they will not print - which they don't

100%

474 E

472 Printed OK

Thru Exp All Bad - only difference vs. low rim plates + + slightly diff schedule.

12 Transfers 1412 Brushed Blanks use low rim 010 plates Reg Van 45cc Bring to Contact Put on Steam starting at 80 - When thermometer reaches 200° Fahr Put pressure to 100 lbs for 1 minute then 300 for 12 minutes Cool down to 80 -

Stalled 80°

It took 2 min + 33 seconds to reach 200° Fahr

Steam on Main line 120 lbs. on press 105 at End of 12 min it reached 328° Fahr -

Cooled down very cold.

Print	Edge parallel to in	(1) poor print
(1) OK		(2) very poor print
(2) OK		
(1) } poor print edge missing		(1) } poor print - incomplete pp.
(1) } very poor print both sides		(1) } hardly any print at all -
(2) } 1/2 inch parallel 1/2 inch off pp		
(1) } very poor print both sides opposite pp -		(1) } See next page
(2) } poor print fast line also opposite pp		(2) } required 4 min at 70s -
(1) } poor print		
(2) } poor print		

474 = Reprinted - same schedule  
 but 4 min at 700.  
 Reached 200 in 2 min 5 sec  
 at End 1 min 24<sup>5</sup> at end of  
 4 min 30<sup>0</sup> Fahr

(1 OK  
 2 OK margin parallel to  $\frac{1}{2}$  in - filled)  
 (1 OK  
 2 OK filled)  
 (1 1 single feed line OK - filled)  
 2 OK edge parallel to  $\frac{1}{2}$  in OK filled) Discard

(1 OK  
 2 margin parallel to one short on  $\frac{1}{2}$  in OK filled)

(1 OK 95% filled  
 2 OK)

(1 OK margin  $\frac{1}{2}$  in filled  
 2 OK)

(1 OK 96% filled  
 2 OK)

(1 OK filled  
 2 OK)

(1 OK margin to one  $\frac{1}{2}$  in  
 2 OK)

(1 OK filled  
 2 OK)

(1 OK  
 2 OK margin parallel near center hole to in filled)

(1 OK filled  
 2 OK)

Evidently flat plates on the new schedule  
 requires change in print schedule from  
 2 min at 700 to 6 or less minutes -

475 E

~~12 Transfers 1412 brushed blanks  
 low rim 450 Reg Var. Bring to  
 Contact. When temperature reaches  
 175<sup>0</sup> Fahr. Put 300 lbs pressure on  
 gradually (not suddenly) + hold  
 for 12 minutes -~~

474 E Didnt print full at  
 at 472 E schedule like the 472  
 did -

This is a reprint of  
 474 - but 4 minutes at  
 700 lbs instead of 2  
 minutes

Transfers of 475- block

- (1 Looks as if the Var on plate Ckd before use
- (2 OK
- (1 OK black
- (2 OK
- (1 OK black
- (2 OK black
- (1 Ckd Var plate } black
- (2 OK
- (1 OK black
- (2 OK black
- (1 OK
- (2 OK black
- (1 OK black
- (2 OK
- (1 OK black
- (2 OK
- (1 Ckd Var plate } black
- (2 OK
- (1 Ckd Var p } black
- (2 OK
- (1 OK black
- (2 OK

100% of these  
had been in  
Cracked Varnish  
plates -

possibly this  
schedule cracked  
the Varnish on  
plates but it don't  
appear that way

NOTICE

All free release

It would appear from this that the lower  
lime when Var got tough & had not reached  
rotten state that it flowed got in contact  
all over & then when high heat came  
it didn't have to flow in rotten state -

475E

Padded Moulds

12 Transfers 1412 blank - low  
rim Req 45 cc Var ~~475~~

Bring to Contact, when  
temperature reaches 180° Fahr  
put pressure on at 100 lbs  
for 1 minute. Then put  
pressure to 300 for 4 hrs  
for 12 minutes -  
Cool to 80

- Prints - 474 Print schedule - 4 min 700
- filled (1 OK
  - 2 OK
  - filled (1 OK
  - 2 OK
  - filled (1 OK
  - 2 OK
  - filled (1 OK
  - 2 OK
  - filled (1 OK
  - 2 OK
  - filled (1 OK
  - 2 OK
  - filled (1 OK
  - 2 OK
  - filled (1 OK
  - 2 OK
  - filled (1 OK
  - 2 OK

100%

The 4 Ckd Var plates were found but only  
2 until warmer

476E

12 Transfers 1412 blank  
brushed. use low run 45 cc  
Reg Var

Bring to Contact when  
temperature reaches

160 degrees - put on 100 lbs  
pressure for 1 min -

then put on 300 lbs for  
12 minutes - Cool

## NEW SCHEDULE

474EB Transfer

Low Rim plates 1412 brushed blank Req Var 45cc

Bring to Contact = Put on steam until  
temperature of platten reaches 200° Fahr  
Then put pressure on to 100 lbs for 1 min  
Then increase pressure to 300 lbs for  
12 minutes

(1) ok in ok

(2) ok 4 1/2" rad.

(2) ok " " "

(1) ok very slight rad.

(2) ok

(1) Cooked + Cracked at hole <sup>near edge</sup> (big hole)

(2) Cooked " " " " " " " " " " " "

(1) ok

(2) ok - slight rad near hole

(2) ok

(1) little cooked 6"

(2) Rad 6"

(1) ok

(2) ok Rad 4 1/2"

(1) ok

(2) ok Rad 4" ungrind

Think we need baked  
blanks —

q1.6

Not near as good as  
original 474E can't be blanks are  
newer.

## NEW SCHEDULE

474EB Prints

Put in contact — put on steam wait  
till platten reaches 200° Fahr,  
Then put pressure to 100 lbs for 1 minute,  
Then increase pressure to 400 lbs for  
4 minutes, Cool take out 125° Fahr

(1) 2 <sup>small</sup> blanks — parallel edge ok to in filled DIS

(2) poor print 3 long 3/4 - 1/2 of in more of in ok in d - DIS

(1) ok 1/2 in

(2) ok

(1) ok filled

(2) ok

(1) ok filled

(2) ok

(1) ok filled

(2) ok not filled but ok

(1) ok filled

(2) ok filled

(1) ok filled

(2) ok not filled but ok

(1) ok not filled but ok

(2) ok

(1) Radial OKs - DIS

This was in transfer

83.3 refer as  
print is concerned

75%

Brick 7/16  
474EC

### TRANSFER

New schedule + plates -  
Locom

#### 474EC - Disp -

(1 OK angle crack edge minus 3/4) Discard none

(2 OK cracked at hole  $\sqrt{1/2}$  long) DIS

(1 OK  
2 OK

(1 OK  
2 OK

(1 OK  
2 2 1/2 cks at hole) Discard.

(1 OK  
2 2 1/4 cks at hole

(1 OK  
2 1 1/4 ck at hole

(1 OK  
2 OK

(1 OK  
2 OK

(1 OK  
2 OK

(2 angle cracks <sup>fitting</sup> left angle, 45°  $\frac{1}{2}$ " long another 3"

(1 OK  
2 OK

(1 OK  
2 OK

(1 OK  
2 OK

All free

Started 90° Feb  
Reached 200° in 2 min 30 sec 328° at end 12 min

Note 4 Cracks at holes in Transfer Compression  
These escaped the notice of inspection  
on the Prints, but found when looked for

50%

#### 474EC Prints

4 min Ray schedule -

(1 OK angle crack - DIS it was in Transfer filled)

(1 OK filled)

(1 OK filled)

(1 OK filled)

(2 OK filled)

(1 OK filled)

(2 OK filled)

(1 OK filled)

(1 OK filled)

(1 OK  
2 angle crack at edge filled it was in Transfer <sup>DIS</sup> filled)

(1 OK  
2 OK filled)

(1 OK  
2 feed knock DIS - Only Discard due to print

(1 OK filled)

(2 OK

All are filled showing 4 min at 700 is ample

Direct inspection of print for  
defect.

Transfer D 474E (Baked Blank) 478E  
low plate

- (1 OK) Black
- (2 OK) Black
- (1 OK) Black
- (2 OK) Black
- (1 OK) Red
- (2 OK) Red
- (1/2 Cooked Centers Cracked on both sides) D15
- (1/2 Cracked at hole) Red D15
- (1 OK - Cooked 3" out may be ok) Red D15
- (2 OK - slightly cooked)
- (1 OK) Black
- (2 OK) Black
- (1 OK) Red
- (2 OK) Red
- (1 OK) Black
- (2 OK) Black
- (1 OK) - Cracked at hole) Red D15
- (2 - Cracked at hole) Red D15
- (1 OK) Black
- (2 OK) Black
- (1 OK) - Cracked in hole) Red D15
- (2 - Cracked in hole) Red D15

all free

Reached 200 in 2 min 40 sec 326 at 12 min

The edges of these transfers  
are very perfect  
possibly due to less gas

D 474 Prints  
newschedule

- (1 OK filled)
- (2 OK filled)
- (1 OK light print)
- (2 OK light print)
- (1 OK filled)
- (2 OK filled)
- (1 OK filled)
- (2 OK edge parallel dks 1/2 in)
- (1 OK light print, clarity numbers)
- (2 OK light print, clarity numbers)
- (1 OK filled)
- (2 OK filled)
- (1 OK filled)
- (2 OK filled)
- (1 OK poor print D15 - edges not flawed)
- (2 OK poor print D15 - edges not flawed)
- (1 OK filled)
- (2 OK filled)
- (1 OK)
- (2 OK margin parallel dks 1/2 in -

96.6 -  
or 100% as far  
as print is  
concerned



474EE

Poor lot Var plates  
Cull tail end by lot

News schedule -

(1 free Cooked Cracked red 6" DIS  
2 Shick Cooked " "

(1 free OK - slight red  
2 free OK

(1 free OK Black

2 free OK Black

(2 free OK Black

2 free OK Black

83.3%

(1 free OK Cooked 7"

2 free OK Cooked 7"

(1 free Cooked OK

2 free Cooked Cracked punch hole

(1 free cooked } may be OK

2 free cooked } may be OK

(1 free OK Black

2 free OK Black

(1 free OK Red -

2 free OK Red -

(1 free NG all red ckd + pulled out

2 free NG all red ckd + pulled out

End 12 min 322°

No coat

We have just found several  
thousands belly variation in  
the transfer holders which is  
Very Very bad as we are  
working very close to welling  
002 to 003 & these variations  
are many times that -

These holders must be  
ground within 001  
to be parallel -

See Bachman

Get 2 sets for our Experiments

We put blanks only 1412 not  
Varnish - between reg high transfer  
plates - No var on plates. The blanks  
were previously Calliper 4 point  
offsets - It is the plate that  
produces the effects at the edge



A few of the Edges are slightly rounded  
most are flat. Most have 010 to 020  
of Edge just pushed out



In places there are nicks & faces off  
We thought it was the Varnish  
when we first saw it on transfer

Calliper shows about 005 +  
less shown at 4 Calliper  
points at Edge  
+ 100 Cents @ 009 is  
greatest swell about 006  
is average swell -

The great swelling of  
blank with Veneer on  
must be due to gas -  
not being able to get  
thru Veneer - it probably  
takes place when pressure is taken off -

## NOTICE

We may have to include in our  
schedules holding the transfer  
possibly the Print under  
pressure for 5 minutes  
after its cold to allow  
the gas to fall in pressure

As these blanks were not  
varnished with Weld  
Var - The gas pressure  
with Brushed blanks  
would be very much  
greater.

Also from 475 E it seems the best  
results both print & transfer  
is when both have their initial  
formation at low temperatures  
pattern 180 on transfer 200 on print -

477E

Hoffman

Make up Enough Reg Var  
to flow 100 Var plates  
45 cc —

Leave out Sandrac

flow on low Edge plates,  
Reg Oven Schedule

Cont'd on print after going  
over this with great care

fill (1) Heating hose line standard 3/4" long  
(2) OK

(1) OK

(2) OK

(1) OK

(2) OK

(1/2) long Crack

(1/2) long Crack very well had search long to find in print

(1) OK

(2) OK

(1) "Crack at hole 1/2"

(2)

(1) pull up  $\frac{3}{4}$  Dia 2 1/2" not found in  
print

(1) OK

(2) 2 1/4 cracks at hole

(1) OK

(2) OK

(1) OK

(2) OK

(1) OK

(2) OK

50%

**NOTICE**

Sandrac melting + expanding  
may correct the great contraction  
of the Condensate heat to Var plates  
by being condensed by  
the higher heat + may thus be  
a good means of  
thing

The long Crack looks as if  
Var cracked on plate, as plate  
are 3 days old or less the schedule  
180 makes them or wash pressure cool

475 EX - Dup of 475 E

Except NO Sandrac in the  
Reg Yarnish 475 E Schedule

180° Fahr - instead of 200° Fahr

out of 27 Var plates 3 were cracked  
& lifted when we started to use  
them - 3 days old -

4 of the plates stuck  
This shows powerful  
contraction due to Sandrac  
& we should if possible  
Discard it

Print 474 each 4/24

fill (1) OK 1/2 long crack	(1) OK filled	
(2) OK	(2) OK filled	
fill (1) OK	(1) OK filled	
(2) OK	(2) OK filled	
fill (1) OK 1/2 long cracks	(1) OK filled but long crack in transfer	
(2) OK	(2) OK filled	
fill (1) OK	(1) OK filled	
(2) OK	(2) OK filled	
fill (1) OK	(1) OK filled	
(2) OK	(2) OK filled	
fill (1) OK	(1) OK filled	
(2) OK	(2) OK filled	

100%  
for  
print any  
Condemned

3 defects in transfer  
were missed in  
this inspection

Transfer 474

- 1 = 1/2 OK black
- 2 (1/2 OK Red worm 1 1/2 from hole radial - black)
- 3 (1/2 OK slight red)
- 4 (1/2 OK slight red)
- 5 (1/2 OK black - probably had an uncut red and black)
- 6 (1/2 OK black)
- 7 (1/2 OK black)
- 8 (1/2 OK black)
- 9 (1/2 OK black)
- 10 (1/2 OK Red)
- 11 (1/2 OK black)
- 12 (1/2 OK Red)

100% if Var on plate had not ckd.

q16

All free release -

Think we are using moulds too cold as transfer shows as if Var on plate Cracked putting in pieces - or in cold moulds -

As all have perfect free release we can use Warm moulds & pieces. It may be all our process should not have been 100 take Var plate - all not lead

3-7-16

478 Reg Var 45cc

12 - Transfer's Reg Var 45 cc 1412 bunched Colony

Bring to Contact. When temp reaches 180. put pressure on at 100 lbs - for 1 minute then to 300 lbs for 12 minutes - Cool

- 11 (1/2 OK filled)
- 6 (1/2 OK filled)
- 7 (1/2 OK filled)
- 4 (1/2 OK filled)
- 3 (1/2 OK filled)
- 2 (1/2 OK filled Red worm shows but OK did not crack)
- 8 (1/2 OK filled filled)
- 5 (1/2 OK there was a cracked chunk which was probably Transfer)
- 10 (1/2 OK in margin OK filled)
- 1 (1/2 OK filled)
- 9 (1/2 OK filled to margin)
- (1/2 OK filled)

100%

479- Transfer -

- 1 (1 OK / 2 OK) reddish
- 2 (1 OK / 2 OK) Cooked rather bad both sides wormy-meat
- 3 (1 OK / 2 OK) Reddish
- 4 (1 OK / 2 OK) Black
- 5 (1 OK / 2 OK) Reddish
- 6 (1 OK / 2 OK) Cooked both sides
- 7 (1 OK / 2 OK) slightly reddish
- 8 (1 OK / 2 OK) Reddish ~~cooked~~ *overcooked*
- 9 (1 OK / 2 OK) black
- 10 (1 OK / 2 OK) black
- 11 (1 OK / 2 OK) Black-meat Cooked wormy
- 12 (1 OK / 2 OK) Black

All free release -

100%  
if cooked dont  
interfere

75% of  
Cooked  
Counted  
against

3-7-16

479-B

45cc Req Var

Transfer -

Dup of 474<sup>12</sup>

Except platters warm -  
so as not to crack Var on  
plates - Moulds were also  
warm = not cooked down so  
low, as we have been doing -

- 1 (1 OK / 2 OK) filled
- 2 (1 OK / 2 OK) - Cracked in Cooked part DIS filled
- 3 (1 OK / 2 OK)  $\frac{1}{2}$  manganese filled
- 4 (1 OK / 2 OK) filled
- 5 (1 OK / 2 OK) filled
- 6 (1 OK / 2 OK) filled
- 7 (1 OK / 2 OK) filled
- 8 (1 OK / 2 OK) Red -
- 9 (1 OK / 2 OK)  $\frac{1}{2}$  manganese " filled
- 10 (1 OK / 2 OK)  $\frac{1}{2}$  " " filled
- 11 (1 OK / 2 OK) filled
- 12 (1 OK / 2 OK) filled

100%  
If Cooked not  
Counted against

Franker 479C

Since getting  
new lot of my Van  
Franker and cooking  
more & redder

- 1 (1 OK Black  
2 OK slight red)
- 2 (1 OK Black  
2 OK Black)
- 3 (1 OK Black  
2 OK)
- 4 (1 OK red  
2 parallel cracks in Missis)
- 5 (1 OK Cooked red) — DISCARD
- 6 (1 OK Black  
2 OK Black) 833
- 7 (1 OK Black  
2 OK)
- 8 (1 OK Black  
2 OK)
- 9 (1 Crack  $\frac{1}{2}$  long in hole Red) DISCARD
- 10 (1 OK Black  
2 OK)
- 11 (1 OK Cooked  
2 OK)
- 12 (1 OK Black  
2 OK)

3-7-16

479-C Dup 478

180°

45cc Reg Van

Warmer plating moulds +  
not chilled down so much —

Print

- 1 (1 OK filled  
2 OK filled)
- 2 (1 OK filled  
2 OK)
- 3 (1 OK filled  
2 OK)
- 4 (1 OK filled) — it shows the parallel OK in Missis
- 5 (1 OK Red  
2 ~~red~~ line OK — Cooked red) — DISCARD full
- 6 (1 OK filled  
2 OK filled)
- 7 (1 OK filled  
2 OK)
- 8 (1 OK filled  
2 OK) 833.
- 9 (1 OK filled  
2 OK)
- 10 (1 OK filled  
2 OK)
- 11 (1 OK  
2 ~~red~~ line Crack — This was Cooked) DISCARD
- 12 (1 OK Light print  
2 OK)

## Transfers

- 1 (1 OK) <sup>2 OK</sup> light red
- 2 (1 OK) <sup>2 OK</sup> Black
- 3 (1 OK) <sup>2 OK</sup> Black
- 9 (1 OK) <sup>2 OK</sup> — 5 angle cracks  $\frac{1}{2}$ " long standing  $\frac{1}{4}$ " in angle 75
- 5 (1 OK) <sup>2 OK</sup> Black
- 6 (1 OK) <sup>2 OK</sup> Black
- 7 (1 OK) <sup>2 OK</sup> Black 2" from hole on marked side to 3 more hills remaining on side - nearly gone still
- 8 (1 OK) <sup>2 OK</sup> Black
- 4 (1 OK) <sup>2 OK</sup> Black
- 10 (1 OK) <sup>2 OK</sup> Black
- 11 (1 OK) <sup>2 OK</sup> Black
- 12 (1 OK) <sup>2 OK</sup> Black

DISCARD There is a bad angle mark at this point

91.6

NOTE Even plates + Even plate holders will stop Cooked Transfers and give nearly perfect transfers on 1412 with this schedule, with req Var All free release.

3-7-16 Replan 45c Padded Moulds for Printing -

478 ED - Mould holes straight by Luhr - 4 are within 0.01 the others are best we can find - Var plates on an even + have no step down 4" from hole - Prints

- 2 (1 OK) <sup>2 OK</sup> to margin filled
- 1 (1 OK) <sup>2 OK</sup> filled
- 3 (1 OK) <sup>2 OK</sup> filled
- 4 (1 OK) <sup>2 OK</sup> filled - to margin ok
- 5 (1 OK) <sup>2 OK</sup> filled
- 6 (1 OK) <sup>2 OK</sup> filled
- 7 (1 OK) <sup>2 OK</sup> filled
- 8 (1 OK) <sup>2 OK</sup> filled
- 9 (1 OK) <sup>2 OK</sup> filled - But the transfer angle cracks are in not closed
- 10 (1 OK) <sup>2 OK</sup> filled
- 11 (1 OK) <sup>2 OK</sup> filled  $\frac{1}{2}$  in margin ok
- 12 (1 OK) <sup>2 OK</sup> filled

100%  
as far as print is concerned

2nd Replan 3-19-16 #1 feed line crack



Transfer 478 E (E)

- 1 (1 OK some red.  
2 OK
- 6 (1 — 2 1/2 crack from hole  
2 OK Black
- 3 (1 OK  
2 OK slight red
- 4 (1 OK Black  
2 OK
- 5 (1 OK Black  
2 OK
- 2 (1 OK Black  
2 OK
- 7 (1 OK Black  
2 OK
- 8 (1 OK Black  
2 OK
- 9 (1 OK Black  
2 OK
- 10 (1 OK Black  
2 OK
- 11 (1 OK Black.  
2 OK
- 12 (1 OK Red 6" note. shows in print.  
2 OK

All free release

DISCARD   
practically printed out

916

3-7-16

478 E (E) <sup>45cc Reg Vaw</sup> 2nd Round of good  
transfer & mould holders

Dup of 478 E II Impeded 3-7-16

- 1 (1 OK filled 1/2 manguchi -
- 2 (1 OK filled
- 3 (1 OK filled 100%
- 4 (1 OK filled 1/2 manguchi
- 5 (1 OK filled
- 6 (1 OK filled The Transfer Cracks at hole <sup>partially</sup> differs to
- 7 (1 OK filled 1/2 manguchi
- 8 (1 OK filled " " "
- 9 (2 OK filled
- 10 (1 OK filled
- 11 (1 OK filled 1/2 manguchi - <sup>blow off sheet shows</sup> Crack 1/2 in <sup>the</sup> <sup>center</sup> <sup>line</sup>
- 12 (1 OK filled Can see red in label area.  
2 OK

2nd dup 3-19-16 #1 hole lined #2 chipped out on edge also damaged  
from chip out due to edging machine -

478 (F)

Uneven Varnish 1<sup>st</sup> round

- 1 (1 OK / 2 OK) 2  $\frac{1}{4}$ " cracks from hole DISCARD Black
- 2 (1 OK / 2 OK) Black - has long radial line not cracked
- 3 (1 OK / 2 OK) same red
- 4 (1 OK / 2 OK) Black
- 5 (1 OK / 2 OK) Black long rad. al line not cracked
- 6 (1 OK / 2 OK) Black
- 7 (1 OK / 2 OK) Black
- 8 (1 OK / 2 OK) Black
- 9 (1 OK Red / 2 OK coated red)
- 10 (1 OK / 2 OK) Black
- 11 (1 OK / 2 OK) Black
- 12 (1 OK / 2 OK) Black

All free release

91.6

478E (F)

3-7-16

Dup 478 Even Mould holders but

with Very Uneven Varnish plates

- 1 (1 OK filled / 2 OK) The 2 cracks are there, not closed  
Mechanical injury
  - 2 (1 OK filled / 2 OK) The long line has disappeared
  - 3 (1 OK filled / 2 OK) show some red in part
  - 4 (1 OK filled / 2 OK)
  - 5 (1 OK filled / 2 OK) The long line has disappeared
  - 6 (1 OK filled / 2 OK)
  - 7 (1 OK filled / 2 OK)
  - 8 (1 OK filled / 2 OK)
  - 9 (1 OK filled / 2 OK) Mangn Ok  $\frac{1}{8}$  in well 2 edge out
  - 10 (1 OK filled / 2 OK)
  - 11 (1 OK filled / 2 OK)
  - 12 (1 OK filled / 2 OK)
- 2<sup>nd</sup> Dup 478 3-19-16 #1 feed line ok - #9 feed line ok

100%

Transfers - 2nd Round  
132nd Van Fleet

- 1 (1 OK Black.  
2 OK
- 2 (1 OK Red spot 1/4" cracked at edge DISCARD  
2 OK
- 3 (1 OK Red - slightly broken  
2 OK
- 4 (1 OK Red  
2 OK
- 5 (1 OK Black  
2 OK
- 6 (1 OK Black  
2 OK
- 7 (1 OK slight red  
2 OK
- 8 (1 OK Black  
2 OK
- 9 (1 OK Black red spot 1 1/2" in not cracked  
2 OK
- 10 (1 OK Black  
2 OK
- 11 (1 OK Black  
2 OK
- 12 (1 OK Red  
2 OK

All free release

91.6

3-7-16

478E (G) -

Drop 478 - Even moulds + very  
uneven Varnish, on plates 2nd round  
Print

- 1 (1 OK filled  
2 OK)
- 2 (1 OK filled - the crack of red spot shows, red gone  
2 OK)
- 3 (1 OK 90% filled OK  
2 OK)
- 4 (1 OK filled red  
2 OK)
- 5 (1 OK filled  
2 OK)
- 6 (1 OK filled  
2 OK)
- 7 (1 OK 90% filled margin ok + in  
2 OK)
- 8 (1 OK filled  
2 OK)
- 9 (1 OK filled  
2 OK)
- 10 (1 OK filled  
2 OK)
- 11 (1 OK 95% filled OK  
2 OK)
- 12 (1 OK filled Red shows in print  
2 OK)

100%

2nd Run down 3-19-16 no change

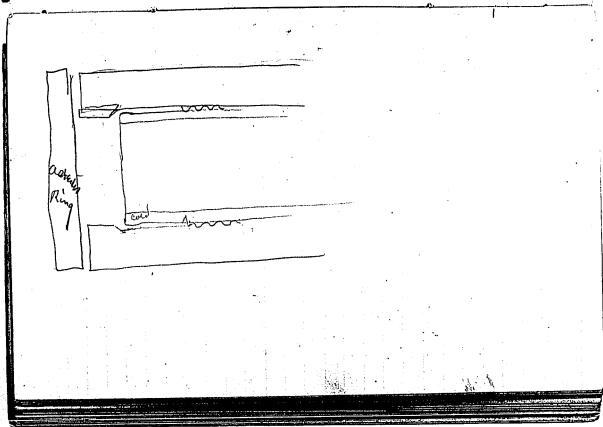
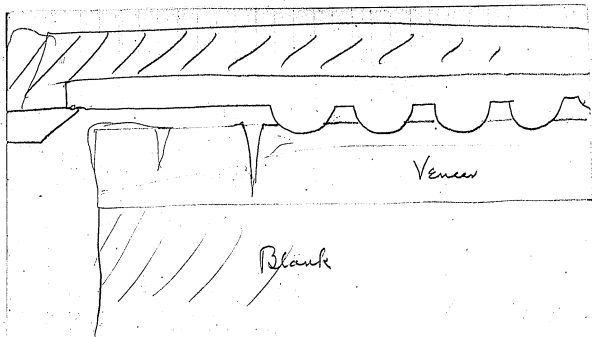
- 1 (1 OK out on Edge big red spot 1 1/2 dia not chd)  
2 OK
- 2 (1 OK Black  
2 OK)
- 3 (1 OK Black  
2 OK)
- 4 (1 OK Red  
2 OK Red w/ light Cook)
- 5 (1 OK Black  
2 OK)
- 6 (1 OK Black  
2 OK)
- 7 (1 OK Black  
2 OK)
- 8 (1 OK m) 2, 4" cracks from hole - DISCARD
- 9 (1 OK Black  
2 OK)
- 10 (1 OK Black  
2 OK)
- 11 (1 OK Black  
2 OK)
- 12 (1 OK Black  
2 OK)

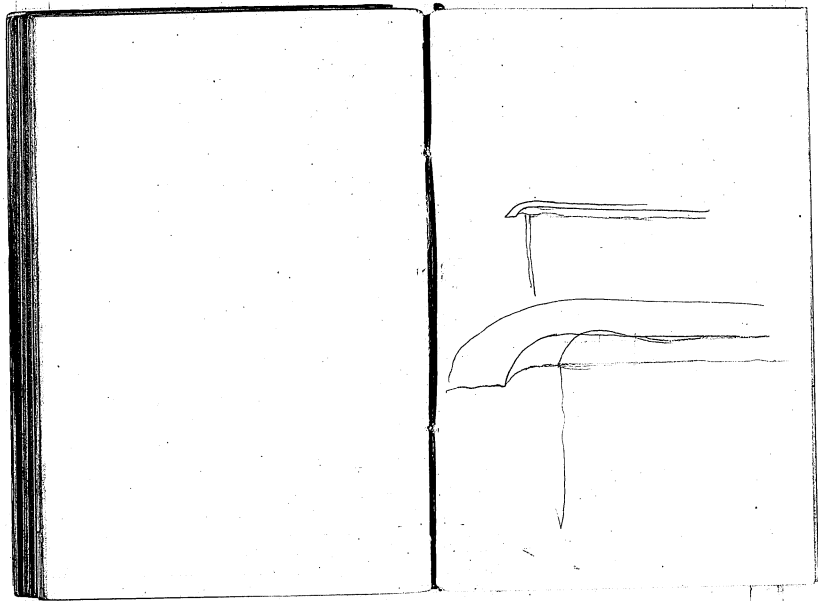
91.6

478E (H) #

Good Mould holders 9-good  
Varnish plates Reg 45 cc  
Print

- 1 (1 OK 80% filled - note Transfer.  
2 OK 90%)
  - 2 (1 OK 95% filled  
2 OK)
  - 3 (1 OK 90% filled  
2 OK)
  - 4 (1 OK filled  
2 OK) 100%
  - 5 (1 OK filled  
2 OK)
  - 6 (1 OK filled  
2 OK) 1st mura ch
  - 7 (1 OK 97% filled  
2 OK)
  - 8 (1 OK 1st mura ch the 2 chs about covered - see Transfer  
2 OK filled)
  - 9 (1 OK filled  
2 OK)
  - 10 (1 OK filled  
2 OK)
  - 11 (1 OK 80% filled  
2 OK 90%)
  - 12 (1 OK 90% filled  
2 OK)
- 2nd Surpan 3-19-16 #5 feed line ch #6 feed line



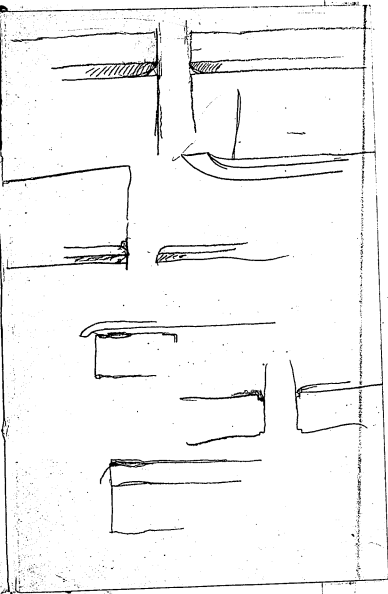


Instances where Ch.  
Concords with sketch of  
injuring to plates  
No 11

Print

- 2 heat,
- 3 Contact
- 5 1000
- 6 Cool.

Powder Blank 100 lb  
5 in Contact xx3  
3 at 1000 lbs  
7 @ 10 Cool





**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Record Book No. 10**  
**Notebook, N-16-03-07**

This notebook was used by Edison during March 1916 for notes on experiments to improve the manufacture of disc records. Two entries at the beginning of the book give a "Standard Printing Schedule" and a "Standard Transfer Schedule." These are followed by notes describing a sequence of experiments numbered from 478E to 511E in which the "standard" schedules are varied in terms of heat and pressure during the transfer and printing processes. Many of the entries include a summary of acceptable and unacceptable transfers or prints obtained. Among the problems noted are red spots and blisters. Other experiments in this sequence involve various processes of brushing varnish onto record blanks and experiments with the ovens. The entry for experiment 498E indicates that the test records were reinspected in May and September 1916. Some notes are in the form of instructions to Sherwood T. (Sam) Moore, Archie D. Hoffman, or other employees. Additional notes on some of the experiments in this book can be found in N-16-04-26, Notebooks by Other Experimenters—Phonograph Record Experiments—Miscellaneous Disc Composition Books. Inserted into the book are several loose items, including a note by Frederick P. Ott and a 1918 communication from laboratory employee Joe Miller to Edison. The front cover is labeled "10." The pages are unnumbered. Approximately 100 pages have been used.

Should transfers show red spots  
considerably the 300 lb pressure may have  
to be raised to 350 @ 375 if very bad  
possibly to 400 lbs

3-7-16

All Print Moulds  
are passed & old  
discards -

<sup>3-7-16</sup> Steam on Main Line 120 lbs

## Standard Printing Schedule

- 1<sup>st</sup> Bring to contact
  - 2<sup>nd</sup> Put on steam
  - 3<sup>rd</sup> When platten temperature 2" in  
reaches 200° Fahr. put the pressure  
to 100 pounds for One minute
  - 4<sup>th</sup> Then put pressure up to  
700 Pounds for Four minutes
  - 5<sup>th</sup> Cool down to 125° Fahr  
and remove  
Record Moulds - taper inward at edge
- All the 478E were made on this  
Schedule

See note on other page back  
about transfers of red spots -

3-7-16

## Standard Transfer Schedule

1412 Blanks, varnished  
with a brush -

Req 45cc Varnish,  
Low rim plates 010 -

- 1<sup>st</sup> Bring to Contact
- 2 When temperature reaches  
180° Fahr put the pressure  
to 100 lbs. for One minute  
Then put pressure to 300 lbs  
for 12 minutes  
Cool + take out 125° Fahr

Transfers (I)

- 1 (1 OK Red 6"
- 2 (1 OK Black 2 OK
- 3 (1 OK Black 2 OK
- 4 (1 OK Black 2 OK
- 5 (1 OK Black 2 OK
- 6 (1 OK Black 2 OK
- 7 (1 OK Black 2 OK
- 8 (1 OK Black 2 — round piece 4 by 1 1/4 long Cracked at Edge DIS
- 9 (1 One third of circumference has a blood crack (C) 2 OK Red
- 10 (1 OK Black 2 OK
- 11 (1 OK Black 2 OK
- 12 (1 OK Black 2 OK

All free release

Inspection 2nd #9 Long OK not opened 3-19-16

9.66

3-7-16

478E (I)

low run plates

Padded Mould

Use standard Transfers

and standard print schedule

Except

final pressure 600 lbs  
for 5 minutes

Cool to 125° Fahr & remove  
PRINT.

- 1 (1 OK 95% filled) 2 OK
- 2 (1 OK filled note injury near minor appear like a crack) 2 OK (1 OK 85% filled)
- 3 (1 OK filled) 2 OK (1 OK 95% filled) 2 OK
- 4 (1 OK filled) 2 OK
- 5 (1 OK 95% filled) 2 OK
- 6 (1 OK 95% filled) 2 OK
- 7 (1 OK 97% filled) 2 OK
- 8 (1 OK 95% filled) 2 OK
- 9 (1 OK 85% filled) — long streak gone 2 OK
- 10 (1 OK 85% filled) 2 OK

100%  
2nd Sample 3-19-16  
long OK #9 not opened up  
#12 free time OK. minor up

Transfers (J)

Lowrump plate

- 1 (1 OK 20K 20K Red)
- 2 (1 OK 20K Black)
- 3 (1 OK 20K Black)
- 4 (1 OK 20K Black)
- 5 (1 OK 20K Black)
- 6 (1 OK 20K Black)
- 7 (1 OK 20K Black)
- 8 (1 OK 20K Black)
- 9 (1 OK 20K Black)
- 10 (1 OK 20K Black)
- 11 (1 OK 20K Black)
- 12 (1 OK 20K Black)

All free release

100%

478E

(J)

3-7-16

Use standard transfers  
and standard print schedule  
Except final pressure 500 lbs  
for 6 minutes

Cool to 125° Fahr & remove

- 1 (1 OK 20K 95% filled)
- 2 (1 OK 20K 95% filled)
- 3 (1 OK 20K 95% filled)
- 4 (1 OK 20K filled)
- 5 (1 OK 20K 95% filled)
- 6 (1 OK 20K filled)
- 7 (1 OK 20K 95% filled)
- 8 (1 OK 20K 95% filled)
- 9 (1 OK 20K 95% filled)
- 10 (1 OK 20K 95% filled)

- 11 (1 OK 20K 95% filled)
- 12 (1 OK 20K 90% filled)

100%

2nd Imp. - 3-19-16 all OK

- 1 (1 OK Red C)  
2 OK
- 2 (1 OK Black)  
2 OK
- 3 (1 OK Red) long closed line 1/2" at margin 5" long  
2 OK
- 4 (1 OK Black)  
2 OK
- 5 (1 OK Black)  
2 OK
- 6 (1 OK Black)  
2 OK
- 7 (1 OK Black)  
2 OK
- 8 (1 OK Black)  
2 OK
- 9 (1 OK Red) 3/4 dia lift OK Discard
- 10 (1 OK Black) one has a circular line near edge  
2 OK not OK
- 11 (1 OK Black)  
2 OK
- 12 (1 OK Black)  
2 OK

91.66

All free release

NOTE with low pressure & longer  
time the blanks themselves (not all)  
split but OK -

478E

(K)

3-7-16

2nd Sample 3-19-16 #7  
Prints Cooked along the Cook up  
probably their long sequence

Use standard Transfers  
and standard print schedule  
Except Final pressure 400 lbs  
for 8 minutes 66%

Cool to 125° Fahr & remove

- 1 (1 OK 95% filled)  
2 OK
- 2 (1 OK 90% filled to margin)  
2 OK
- 3 (1 OK filled to margin)  
2 OK
- 4 (1 OK 95% filled to margin)  
2 OK
- 5 (1/2 not filled enough DISCARD)
- 6 (1/2 not filled at all 1" x 4" Edge DISCARD)
- 7 (1/2 not filled enough DISCARD)
- 8 (1/2 not filled enough - DISCARD)  
note Edges blank on Number 6 place OK - Several  
Told us 2 wrong
- 9 (1 OK 80% filled) OK left  
2 OK thin class
- 10 (1 OK filled)  
2 OK
- 11 (1 OK filled)  
2 OK
- 12 (1 OK 80% filled)  
2 OK

478

L

Transfom

- 1 (1 OK / 2 OK) Black
- 2 (1 OK / 2 OK) Black
- 3 (1 OK / 2 OK) Red
- 4 (1 OK / 2 OK) Black
- 5 (1 OK / 2 OK) Black
- 6 (1 OK / 2 OK) Black
- 7 (1 OK / 2 OK) Black
- 8 (1 OK / 2 OK) Black
- 9 (1 OK / 2 OK) Black
- 10 (1 OK / 2 OK) Black
- 11 (1 OK / 2 OK) Black
- 12 (1 OK / 2 OK) Black

All free release

100%

478E

L

3-7-16-

Dup of K but of final pressure  
to be 800 lbs for 3 minutes

PRINTS

- 1 (1 OK / 2 OK) filled
- 2 (1 OK / 2 OK) filled to margin ch
- 3 (1 OK / 2 OK) filled
- 4 (1 OK / 2 OK) filled to margin ch
- 5 (1 OK / 2 OK) filled
- 6 (1 OK / 2 OK) filled 2nd dup 3-19-16 -
- 7 (1 OK / 2 OK) filled #1 feed line ok
- 8 (1 OK / 2 OK) filled #6 feed line ok
- 9 (1 OK / 2 OK) filled
- 10 (1 OK / 2 OK) filled
- 11 (1 OK / 2 OK) filled
- 12 (1 OK / 2 OK) filled

All perfectly filled -

Edges shade rounded

100%

478E

M

Transfers

- 1 (1<sup>OK</sup>/<sub>2OK</sub>) Black
- 2 (1<sup>OK</sup>/<sub>2OK</sub>) Black
- 3 (1<sup>OK</sup>/<sub>2OK</sub>) Black
- 4 (1<sup>OK</sup>/<sub>2OK</sub>) Black
- 5 (1<sup>OK</sup>/<sub>2OK</sub>) Black
- 6 (1<sup>OK</sup>/<sub>2OK</sub>) Black groups of 4 cks 3/8 long closed 3/8" for hole
- 7 (1<sup>OK</sup>/<sub>2OK</sub>) Black
- 8 (1<sup>OK</sup>/<sub>2OK</sub>) Black
- 9 (1<sup>OK</sup>/<sub>2OK</sub>) Black
- 10 (1<sup>OK</sup>/<sub>2OK</sub>) Black
- 11 (1<sup>OK</sup>/<sub>2OK</sub>) Black
- 12 (1<sup>OK</sup>/<sub>2OK</sub>) Black

All free release

100%

478E

M

3-7-16

Padded Print Moulds  
(Old discarded)  
why moulds

Dup of K

But final processor 1000 lbs  
for 2 minutes,

PRINTS

- 1 (1<sup>OK</sup>/<sub>2OK</sub>) filled
- 2 (1<sup>OK</sup>/<sub>2OK</sub>) filled
- 3 (1<sup>OK</sup>/<sub>2OK</sub>) filled
- 4 (1<sup>OK</sup>/<sub>2OK</sub>) filled
- 5 (1<sup>OK</sup>/<sub>2OK</sub>) filled  $\frac{1}{2}$  manq-cks
- 6 (1<sup>OK</sup>/<sub>2OK</sub>) filled
- 7 (1<sup>OK</sup>/<sub>2OK</sub>) filled 2<sup>nd</sup> Invest'n 3-19-16 OK -  
nothing developed -
- 8 (1<sup>OK</sup>/<sub>2OK</sub>) filled
- 9 (1<sup>OK</sup>/<sub>2OK</sub>) filled
- 10 (1<sup>OK</sup>/<sub>2OK</sub>) filled
- 11 (1<sup>OK</sup>/<sub>2OK</sub>) filled  $\frac{1}{2}$  manq-cks
- 12 (1<sup>OK</sup>/<sub>2OK</sub>) filled

100%

perfectly filled

good blank edges -



- 1 (1 OK Black  
2 OK Black)
- 2 (1 OK Black slight crack at hole mechanism  
2 OK Black)
- 3 (1 OK Black  
2 OK Black)
- 4 (1 OK Black  
2 OK Black)
- 5 (1 OK Black  
2 OK Black) 91.6
- 6 (1 OK Black  
2 OK Black)
- 7 (1 OK Black  
2 OK Black)
- 8 (1 OK Black  
2 OK Black)
- 9 (1 OK Black  
2 OK Black)
- 10 (1 OK Black  
2 OK Black)
- 11 (1 Red left ckd in music  $\frac{1}{2}$  dia Black  
2 OK Black)
- 12 (1 OK Crack at hole  $\frac{1}{2}$  dia Black  
2 OK Black)

478E

N

## Standard Transfers

Except yesterday's Var plates  
used which was poor &  
Cracked so much & which  
had raises & was so bad  
up stairs - red

PRINTS

- 1 (1 OK filled  
2 OK filled)
- 2 (1 OK filled  
2 OK filled)
- 3 (1 OK filled  
2 OK filled)
- 4 (1 OK filled  
2 OK filled)
- 5 (1 OK filled  
2 OK filled)
- 6 (1 OK filled  
2 OK filled)
- 7 (1 OK filled  
2 OK filled)
- 8 (1 OK filled  
2 OK filled)
- 9 (1 OK filled  
2 OK filled)
- 10 (1 OK filled  
2 OK filled)
- 11 (1 OK filled red left ok in there but black  
2 OK filled)
- 12 (1 OK filled  
2 OK filled)

91.6 %

all perfectly filled

- 1 (1 OK) 2 cracks 1/4 long at hole
- 2 (1 OK) 2 OK Black
- 3 (1 OK) 2 OK Black
- 4 (1 OK) 2 OK Black
- 5 (1 OK) 2 OK Black
- 6 (1 OK) 2 OK Black
- 7 (1 OK) 2 OK Black
- 8 (1 OK) 2 OK Black
- 9 (1 OK) 2 OK Black
- 10 (1 OK) 2 OK Black
- 11 (1 - low place at edge 1/2 in x 4" Long Manque Cks  
2 OK Black 1/4 inch in from edge - P-plate has  
deep groove & friction caused them  
probably)
- 12 (1 OK) 2 OK Black

9/166

After Printing a red left shows Van ~~very~~  
tough can be bent

478E

MM



3-7-16

Put in Contact - Put on steam when  
Thermon gets to 170 put pressure to 100 lbs  
for 1 minute then 300 lbs for 12 mins -  
Cool - remove at 125° Fahr  
Used new straight mould holes -  
accurate within .001 of inch -  
Padded moulds for printing  
Req 45 cc Var 010 edge plates, 1412  
brushed blank

Print

- |                                |                     |  |
|--------------------------------|---------------------|--|
| 1 (1 OK) Tracked Mould         | 7 (1 tied line cks) | } Tracked Mould<br>moulds not tapered<br>enough on back<br>and       |
| 2 (2 OK) filled                | 8 (2 OK)            |  |
| 2 (1 OK) filled                | 8 (1 OK) filled     | } Had moulds been<br>tapered right<br>it would be<br>100%            |
| 3 (2 OK) filled                | 9 (2 OK) filled     |  |
| 4 (1 OK) filled 1/2 manque cks | 10 (1 OK) filled    | } 100%<br>98% fill - low place printed out<br>but find manque cracks |
| 5 (1 OK) filled                | 11 (2 OK)           |  |
| 6 (1 OK) filled                | 12 (1 OK) filled    |  |

← This varnish is brittle, can't bend, snap  
Very sensitive to draft - cuts hard

- 1 (1 OK Black  
2 OK)
- 2 (1 OK Black  
2 OK)
- 3 (1 OK Black  
2 OK)
- 4 (1 OK Black  
2 OK)
- 5 (1 OK Black  
2 OK)
- 6 (1 OK piece broke out at edge handling  
2 OK Black)
- 7 (1 OK Black  
2 B. in red lift ok) no weld DISCARD
- 8 (1 OK  
2 OK black)
- 9 (1 OK black  
2 OK) 91-6
- 10 (1 OK Black  
2 OK)
- 11 (1 OK Black  
2 OK)
- 12 (1 OK Black  
2 OK found red) spot  $\frac{1}{2}$ " dia.

160 L probably  
too low, but not carbon as  
Tracked wheels were not given proper  
lapses + var is small & insufficient tonight

478E

P

Transfer

Standard schedule

Except when Thermometer  
reaches 160° Fahr put pressure  
to 100 lbs for 1 min then raise  
to 300 for 12 min, Cook remove  
at 175° Fahr

- |   |   |
|---|---|
| 1 (1 OK filled<br>2 OK)                       | 7 (1 OK but poor fill edge left<br>2 OK - big left, not before<br>pressure)   |
| 2 (1 OK filled<br>2 OK)                       | 8 (1 OK<br>2 OK filled)   |
| 3 (1 OK filled<br>2 OK)                       | 9 (1 head line ok (Tracked wheels)<br>2 fresh track)  |
| 4 (1 head line ok Tracked IM<br>2 main track) | 10 (1 OK<br>2 OK filled)  |
| 5 (1 OK filled<br>2 OK)                       | 11 (1 OK Black<br>2 in a head a big blaster & touched<br>it with pencil point - it<br>cracked. It is black +<br>but did not have more than<br>90% fill) |
| 6 (1 OK filled<br>2 OK)                       | 12 (1 OK<br>2 OK filled)  |

100% of track blank  
from (12) spot

The Varnish is very thin over an area of  
 $2\frac{1}{2} \times 6$ " + then it thick - It was black +  
had touched but after air thru it up, after taking  
print out

480E

3-7-16

Experiment on Ovens to  
get Varnish not so much  
Condensed & sensitive to  
draughts + not so subject  
to Rafts -

The Schedule to be pasted  
here when finished -

Started Over 1 am 3-8-16-

Transfer Note Only 6 min at 300

- 1 (1 OK Black  
2 OK Black)
- 2 (1 OK Black  
2 OK Black)
- 3 (1 OK Black  
2 OK - 2 Red spots, gas still under Chem)
- 4 (1 OK Black  
2 OK Black)
- 5 (1 OK Black  
2 OK Black)
- 6 (1 OK  
2 OK) Chip out Cracks at Edge Mechanical
- 7 (1 OK  
2 OK) - 2 Red spots, both cracked
- 8 (1 OK Black  
2 OK Black)
- 9 (1 OK Black  
2 OK Black)
- 10 (1 OK  
2 OK) - small red spot chd
- 11 (1 OK  
2 OK) - left cracked
- 12 (1 OK - Black  
2 OK) - 8 Radial Cracks at margin

66%

478E

Q

Var Lot number 275

Transfer

Put in Contact  
Put on Steam

Where red spots  
looking out warm  
no OK red spots  
by gun

When Therm reaches 180° Fahr.  
put pressure to 100 lbs for 1 min  
Then put pressure to 300 lbs  
for 6 minutes Cool + remove  
at 125° Fahr

- |  |   |
|--|---|
| 1 (1 OK<br>2 OK) filled                    | 7 (1 OK<br>2 OK) filled - Tcd Holes                                   |
| 2 (1 OK<br>2 OK) full                      | 8 (1 OK<br>2 OK) filled - Tcd Holes                                   |
| 3 (1 OK<br>2 OK) full no significant spots | 9 (1 OK<br>2 OK) filled   |
| 4 (1 OK<br>2 OK) filled                    | 10 (1 OK<br>2 OK) filled - spot cracked<br>fully found                |
| 5 (1 OK<br>2 OK) filled                    | 11 (1 OK<br>2 OK) - 1 Ring left chd                                   |
| 6 (1 OK<br>2 OK) chip out found            | 12 (1 OK<br>2 OK) - 8 radial chd missed at first<br>but finally found |

NOTICE 3-7-16

If blanks come thin than those we determined the schedule with we are liable to have red spots Cracked, because the thinner the blank the less it will flow to allow Varnish to touch all over - So we must NOT

use or allow blanks to be made thinner than those used in determining schedule. If they are a little thicker it will not harm -

To night we found some old 1412 Feb 26 California thinner - using standard schedule 50% of them gave big head left no weld. The 300 lbs not being enough for a thin blank also if blanks have dried out they will not flow

as much on a given pressure as a newly made blank with still some alcohol in the shellac

Of course this can be corrected by increasing the pressure from 300 to 400 lbs on a transfer thus the extra 100 lbs will press out the blank faster & allow the red spots to touch & weld. The red spots are not more than .0005 from welding

No 478 [F] & [G] shows with proper blank standard transfer + Print schedule will take care of even & specially selected uneven Varnish plates

Transfers — R-

- 1 (1 OK  
2 Red spot 1/2" ckd Black DIS
- 2 (1 near edge 3/8 in 5" Long ~~cracks~~ DIS  
2 pull out near margin
- 3 (1 OK  
2 big red. ckd DIS
- 4 (1 OK filler  
2 OK black
- 5 (1 OK black  
2 OK black
- 6 (1 Edge v chip out DIS  
2 OK
- 7 (1 OK black  
2 OK black
- 8 (1 OK black  
2 OK black
- 9 (1 OK black  
2 OK black
- 10 (1 OK black  
2 OK black
- 11 (1 OK black  
2 OK black
- 12 (1 Red spot <sup>at hole</sup> 2 chs at hole DIS  
2 long crack at edge 20" angle run in 3/4" — long chis  
off var pulled off at edge 2 chs at hole —

40%

This varnish sticks to plates badly  
Scarcely any free release

478 E

[R]

Reg Transfer Schedule 180° Feb

387 45 cc Var instead of Regular

Var —

1 1/2	9 1/2
2 1/2	10 1/2
3 1/2	11 1/2
4 1/2	12 1/2
5 1/2	
6 1/2	
7 1/2	
8 1/2	

This schedule don't  
fit this varnish  
No. Print

- 1 (1 OK Black  
2 OK Black)
- 2 (1 OK Black  
2 OK Black)
- 3 (1 OK Black  
2 OK Black) *at hole*
- 4 (1 OK Black  
2 OK Black)
- 5 (1 OK Black  
2 OK Black)
- 6 (1 OK Black  
2 OK Black)
- 7 (1 OK Black  
2 OK Black)
- 8 (1 OK Black  
2 OK Black)
- 9 (1 OK Black  
2 OK Black)
- 10 (1 OK Black  
2 OK Black)
- 11 (1 OK Black -  
2 sample Cks 1/4" in from Edge - DISCARD)
- 12 (1 OK Black  
2 - 2 cracks at hole Mechanical)

9166

478E 5

Reg schedule Except  
400 lbs final pressure  
instead of Regular  
Pao — to stop real  
shots on our Reg Var tonight  
which seem to be thin in spots  
+ brittle —

- |  |   |
|--|---|
| 1 (1 OK <sup>1/4" margin</sup> ck<br>2 OK                    | 7 (1/2 OK <sup>margin ck 1/16" in DIS</sup><br>2 OK           |
| 2 (1/2 OK  | 8 (1/2 OK   |
| 3 (1 OK ck at hole filled<br>2 OK                            | 9 (1 - feed line - Taked M<br>2 OK                            |
| 4 (1 OK<br>2 OK <sup>to margin</sup>                         | 10 (1 OK<br>2 OK  |
| 5 (1 OK <sup>to margin</sup><br>2 - 1 very fine parallel DIS | 11 (1 OK (had) aligned 2 cks at edge<br>2 OK ck at hole in ck |
| 6 (1 OK<br>2 OK  | 12 (2 feed line Cks Tracked M                                 |

916



478 [T] Frauds-

- 1 (1 OK / 2 OK) Black 2 chs at base Measurement
- 2 (1 OK / 2 OK) Black one red spot  $\frac{1}{4} \times \frac{1}{4}$ "
- 3 (1 OK / 2 OK) Black
- 4 (1 OK / 2 OK) Black - v chip out at Edge Measurement
- 5 (1 OK / 2 OK) Black
- 6 (1 OK / 2 OK) Black
- 7 (1 OK / 2 OK) Black
- 8 (1 OK / 2 OK) Black
- 9 (1 OK / 2 OK) Black
- 10 (1 OK / 2 OK) Black
- 11 (1 OK / 2 OK) Black in red space  $\frac{1}{4} \times \frac{1}{4}$  of amt.
- 12 (1 OK / 2 OK) Black

100%

478E [T]

Reschedule to see if  
Red spots appear -  
This is back to 300 lbs -

New Oven Schedule

3-11-16

Low rim plates 010-

Plates	480		
Wrinkled	14		
injured	3	9	Even plates
Bubbles	23	253	uneven "
Cracked	5	37	patched "
Chipped	3	78	Wrinkled "
Dirt	2	52	Bubbles "
Sample	<u>1</u>	429	
Discards	51		
Good plates	429		

89.3%  
or 92.5% excluding wrinkles

No lefts

Moore has tried wear tests on New Bake

Req blank - 15 min Schedule -  
250 times - It wears pretty good

Shows slight yellow dust, after  
cleaning the wear + unworn  
surface not bad, Undermicro  
show wear but not great

Shows a certain amount of  
plasticity, 20 minutes in press  
would harden still more if  
necessary - perhaps plasticity  
is good for Cracking -

Continued

Req Plates

Plates	1200		
Wrinkled	18	593	Uneven plates
Uneven	46	183	Patched "
Bubbles	134	41	Even "
Raised	1	38	Bubbles "
Cracked	2	95	Wrinkled "
Chipped	7	950	
Injured	23		
Dimple	19		
Discards	250	950	ok

79.1

New Bake

- 1 (1 OK Black  
2 OK)
- 2 (1 OK Black  
2 OK)
- 3 (1 OK  
2-3 4" Crack at hole)
- 4 (1 OK Black  
2 OK)
- 5 (1 OK Black  
2 OK)
- 6 (1 OK Black  
2 OK)
- 7 (1 OK Black  
2 OK)
- 8 (1 OK 1/2" Red spot OK  
2 OK)
- 9 (1 OK Black  
2 OK)
- 10 (1 OK Black  
2 OK)
- 11 (1 OK Black  
2 OK)
- 12 (1 OK Black  
2 Chip out mechanical)

91.66 -  
Cracks at hole  
a Discum  
+ mechanical  
Counted OK  
as per a Blanket Group  
print in comments

Seeposed in Schedule  
1412 Almond J. Schuler

478E



Req V at NEW BAKE as per  
records 1 page back -

For time tests

- 1 (1 OK  
2 OK)
- 2 (1 OK  
2 OK)
- 3 (1 OK  
2 OK)
- 4 (1 OK  
2 OK)
- 5 (1 OK  
2 OK)
- 6 (1 OK  
2 OK)
- 7 (1 OK  
2 OK)
- 8 (1 OK  
2 OK)
- 9 (1 OK  
2 OK)
- 10 (1 OK  
2 OK)
- 11 (1 Poor print not filled inside - pbbly low Var plate  
2 OK)
- 12 (1 Red line - chip out from transfer. Mould 3-004  
2 Poor print of  
Crack 7/10/6 -

83.3

- 1 (1 OK Black  
2 OK
- 2 (1 OK Red spot 1/4" - 1/8" blurred up OK
- 3 (1 OK Black
- 4 (1 OK Black
- 5 (1 OK Black
- 6 (1 OK Black
- 7 (1 OK Black
- 8 (1 OK Black
- 9 (1 OK at Edge, angle, 1/2 in done by Edging Machine OK
- 10 (1 OK black
- 11 (1 OK black
- 12 (1 OK chip out at Edge Machine OK

100%  
outside measurement

478 U<sub>2</sub>

See posted in  
schedule

1412

3-16-16

1

Low Bake-

Dup of U

for time tests -

- 1 (1 OK
- 2 (1 OK
- 3 (1 OK
- 4 (1 OK
- 5 (1 OK
- 6 (1 OK black More 20
- 7 (1 OK
- 8 (1 OK feedline OK near dent of plate
- 9 (1 OK cant see OK that was on transfer
- 10 (1 OK
- 11 (1 faint print inside -
- 12 (1 OK

75%

- 1 (1 OK  
2 OK) chipped out little around the hole
- 2 (1 OK  
2 OK)
- 3 (1 OK  
2 OK)
- 4 (1 OK  
2 OK)
- 5 (1 OK  
2 OK)
- 6 (1 OK  
2 OK)
- 7 (1 OK  
2 OK) chip out + chd due to Edges on blank gun assembly
- 8 (1 OK  
2 OK) at Edges, chip out; looks as if it started in Edges
- 9 (1 OK  
2 OK)
- 10 (1 OK  
2 OK)
- 11 (1 OK  
2 OK)
- 12 (1 OK  
2 OK)



89B

478

U<sub>3</sub>

As per schedule 3-11-16

Low back

- 1 (1 OK  
2 OK)
- 2 (1 OK  
2 OK)
- 3 (1 OK  
2 OK)
- 4 (1 OK  
2 OK) <sup>2-14-16 F</sup> <sub>ground up closed</sub> <sub>OK results.</sub> 100%
- 5 (1 OK  
2 OK) as far as print
- 6 (1 OK  
2 OK)
- 7 (1 OK  
2 OK) as far as print - covered
- 8 (1 OK  
2 OK)
- 9 (1 OK  
2 OK)
- 10 (1 OK  
2 OK)
- 11 (1 OK  
2 OK)
- 12 (1 OK  
2 OK)

Reinspection 3-19-16 #4 cloud ok opened up apparently -

- 1 (1 OK / 2 OK)
- 2 (1 OK / 2 OK) *Repaired chd - it was a very uneven plate*
- 3 (1 OK / 2 OK)
- 4 (1 OK) *Very bad lattice cracks radial in middle*
- 5 (1 OK / 2 OK)
- 6 (1 OK / 2 OK)
- 7 (1 OK / 2 OK)
- 8 (1 OK / 2 OK)
- 9 (1 OK) *chd at hole*
- 10 (1 OK / 2 OK) *chipped around Edggs + chd due to Edggs or blank*
- 11 (1 OK / 2 OK)
- 12 (1 OK / 2 OK) -

66%

See posted in Schedule  
3-11-16

478

U<sub>4</sub>

Neo-Bake

For time tests:

- 1 (1 OK / 2 OK)
- 2 (1 OK / 2 OK) *Red spot chd in front*
- 3 (1 OK / 2 OK)
- 4 (1 OK / 2 OK) *lattice chd there*
- 5 (1 OK / 2 OK)
- 6 (1 OK / 2 OK)
- 7 (1 OK / 2 OK)
- 8 (1 OK / 2 OK)
- 9 (1 OK / 2 OK)
- 10 (1 OK / 2 OK)
- 11 (1 OK / 2 OK)
- 12 (1 OK / 2 OK) *chd margin / may have been in transfer as Edggs ragged + white from buffing*

100%

you transfer it.

3-19

2 new

100%

3-11-16-

WE transform 600 low plate Reg Var  
on 1412 blanks New schedule  
like 478 - High Reg Bake

Transfers 600  
OK 544  
Cooked Center 1  
dpts Cracked 18  
Cracked plates 6  
Bird 1  
Blank Cracked 1  
Cracked Var - 27

OK 90%

Mostly Edge cks chipped  
blank bad -

Printed - 374 -

Discarded for

Run Outs 10  
Cracks 28  
Poor pts 7

45

Really due to  
prints -

Mould/Knocks 14  
Bents in Van plate 3  
Rough Surface 10  
Feed Machine 32  
Scratch 1  
White & Silver Spt. 4  
Holes 5  
Feather Line Mark 3  
Chipped Edge 1

73



481E

Moore is to select a dozen  
Varnish plates which have been baked  
and a little Cracked, These are to  
be repaired by putting a little  
separ Varnish along the Cracks  
+ Re baked, then if OK  
Transferred on 14Z blanks  
new stand and schedule  
also printed —

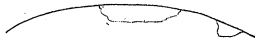
NOTICE

Can't find any that have  
short CRs, those that are  
Cracked go clear across &  
are unrepairable

482 E

Moore

Inspect ~~at~~ 500 1412 blanks  
for Crack at Edges,



Some are evidently injured in  
handling after moulding

Inspected by girl -

444 Blanks found only  
4 Chipped out on Edges  
by handling

Note.

Couldnt find a single  
one that was cracked.

483 E

Assemble 100 Transfers -  
putth Reg bake blanks  
put them in press then  
remove them take them  
apart & Re inspect for  
Cracks -

I want to insure myself  
that none of the vacuum  
plates are cracked in  
handling -  
S

### Reprint

Original Print 12- 11ok 1 poor print  
This is with Reg schedule 4 min - 700 lbs

1st Reprint at 800 lbs prints 2 minutes  
Expose Records - 9 OK

2nd Reprint at 900 lbs -  
8 OK -

We note that twice a second may  
give a poor print but the 3rd  
time print OK -

### 484E

Take 24 new blank records

Reprint them on following  
schedule a dozen times  
Inspect & record after each

Reprint

Schedule <sup>put in Contact</sup> when thermometer  
reaches 200 deg put

pressure at 100 lbs for 1 min

Then 700 lbs for 2 minutes

Cool & take out  
about 125° Fahr

## High Rim Plates

Plates	840		
Wrinkles	10		
Bubbles	111		
Raised	1		
Cracked	5	OK	
Chipped	3		
Dirt	6	Even	49
Injured	5	Uneven	360
Dimples	4	patched	173
	<u>172</u>	Wrinkles	62
		Bubbles	<u>24</u>
OK	668		668

79.5

Duplicate run as per schedule of  
3-10-16 posted in book called  
low schedule

Req Vars on high & low rim  
plates -

Low Rim -

plates	840		
Wrinkles	15		
Uneven	13		
Bubbles	108		
Cracked	7		
Chipped	✓	OK	
Dirt	7	Even	20
Injured	10	Uneven	432
Dimples	<u>6</u>	patched	79
	174	Bubbles	83
OK	666	Wrinkles	<u>52</u>
			666

79.2%

Another Low Bake as per schedule  
 of 3-10-16 pasted within Cook  
 3-13-16

Lois Rim		High Rim	
Plates	840	840	
Wrinkles	32	4	Note
Uneven	7	60	Note
Bubbles	87	98	
Raised	1	00	
Cracks	9	00	Note
Chipped	5	4	
Injured	24	9	
Dimples	5	3	
Discards	170	180	
OK	670	660	

78.5

OKs are

Even	18	80/0
Uneven	392	
Patches	61	
Wrinkles	96	
Bubbles	103	
	<u>670</u>	

66	Even
480	Uneven
72	Patches
18	Wrinkles
24	Bubbles
<u>660</u>	

Low Bake -  
Transfers 15 min Req schedule

Transferred	72
OK	60
Pullouts	9
Burns	1
Cracked	2
<hr/>	
	83% OK

20 minute Schedule

Transferred	72
OK	61
Pullouts	5
Cracked	5
Mechanical	1
<hr/>	
	84% OK

3rd Bake Low Bake as per schedule  
3-10-16 pasted in this book

Loce Run

Plates	480	
Wrinkled	14	
Injured	3	
Bubbles	23	9 Even
Cracked	5	253 Uneven
Chipped	3	37 Patch
Dirt	2	78 Wrinkled
Dimples	1	52 Bubbles
<hr/>		
	51	429
OK	429	

High Run

Plates	1200	
Wrinkled	18	593 Uneven
Uneven	46	41 Even
Bubbles	134	183 Patch
Raised	1	38 Bubbles
Cracked	2	95 Wrinkled
Chipped	7	950
Injured	23	
Dimples	19	
<hr/>		
	250	
OK	950	79.1%

Another fat loss Bake transfer

15 min		20 minutes
Transfer 165		165
OK 153		159
Pull out 7		2
Bird 1		1
Chd far 2		3
Mechanical 2		
		<hr/>
		96% OK
		92% OK

Blanish made from  
Recovered phenol 58.1 6/4

Transfer 161  
OK 75

46%

Pull out 40  
Birds 13  
Cracked Var 33

Reg Bake

Plate flowing

Plates 380	10	Even
Wrinkles 3	227	Uneven
injured 1	35	Palated
Bubbles 5	37	(Cracked)
Raised 48	17	Sheet Glass
Chipped 2		
	<hr/>	
	59	321

OK-321

84.5%



Special Var made from  
Resin with High free phenol  
22.2 free phenol in Resin —  
Baked Reg 9 hours High Bake

346 plates

346 Discarded for Bubbles  
10 Raised

All discarded for bubbles —

Drop on Low Bake

350 plates.

350 Discarded for Bubbles  
1 Raised —

Not so many bubbles per  
plate on low bake

00% all bad

Note -

It is probable that the lower the Bake say 210 @ 200 the less the defects in Varnish will persist thru Transfer + print,

For instance wrinkles in Varnish will get so set that in transferring or printing they will persist + return

If the bake is low + short about 170. The Varnish will not be greatly hardened in Oven, + most of it done in transfer hence wrinkles will not have same tendency to return -

Moore = Note a change you might try in Reg Low Bake as shown in dotted line

485

Burnished blanks

Transfer - 1412 blanks

Schedule 5 minutes at 100 lbs  
12 minutes at 300 lbs.

Put at contact; when reaches 180° F  
put on 150 pounds - hold.  
at 150 lbs pressure for 5 min  
Then 12 minutes at 300 lbs.  
take out ~~at 180° F~~ Cold.

12 = Transfer —

2 Blisters -

6 parallel cracks  $\frac{1}{16}$  to  $\frac{1}{8}$  in

Rest OK —

This shows gas  
gets out.

486- 1/2 of these after  
Reinspection & Careful marking  
of defects are to go over  
ovens for time test  
& 1/2 put in Chemical  
Room over Cases  
for time test -

486E Transfers  
1255 Var lot 389 - 1412 D lot 63  
NOT BRUSHED

Transfers 72  
OK 63  
2 Cooked Centers  
3 Red Blotches  
2 Old Var  
2 Chipped Centers

Prints 63-  
OK 48

Marqun Cks 2  
Poor Prints 5-  
Angle Cks 2  
Cracked at hole 6-

Broken blank edges is  
due to swelling of blank so  
Edge of the transfer plate is on  
the edge of blank & couldn't  
help break out,

487 E

Transfer 488 1412 blanks -  
with varnish on edges  
only  $4/4$  in -

Req Var plates 9 hour -

Print Inspect well  
+ mark defects + put  
 $1/2$  in Chem Room  
+  $1/2$  over ovens -

OK IIIIIM

Blanks not chd II

(Broken edges) on 2

One blister puffed way up not  
broken - air under pressure  
in + 9 blank -

488 E Blank not crushed

Transfer 12 1412 blanks  
Req Val - 9 hours back

Put at Contact needle just  
off pin - when temp  
get 180° Fahr put at  
150 lbs for 6 minutes -

then run ~~to~~ 300 lbs pressure &  
hold for 10 minutes.

Don't buff or Edge

Blisters & Crushed Edges of Blank  
Cracked at Halo |

OK ||

Crushed Edge of blank |

Crushed Edge angle ||

" " V ||  
" " parallel to ||

Blister blank  
Lot # 96

Blister III  
✓ Chip out III  
Parallel Chk II  
No Blister III III  
Angle Chk II  
OK I

Reg 1412, brushed  
1391  
as comparison  
No Blister III  
✓ Chip I  
Parallel Chk III  
Blister  
OK III III  
Blister 1 g. do  
Angle Chk I

Baking the blank don't seem  
to be any good in stopping  
Blister -

This appears to show that blisters  
come easier on dry smooth blanks  
as there is nothing to anchor  
Vener down or it is due  
to gas holding Vener away from  
blank till most of gas is out  
& then the 300 lbs pressure it  
applied blank  
One or other theory must be OK

489 E

Bake 50 1412 blank not  
brushed, Run them thru on  
Reg 9 hours schedule in  
oven with the Reg  
Vacuum plates +

afterwards transfer them  
using regular Vac  
plates & Reg 1412  
blank schedule  
give me record,

490-E

Dup of 485E

But blanks are  
not brushed -

OK W11

Blister at Hole drawn 1

✓ Edge ch II

Angle Ch. I

Red angle blister from Edge ch I



OK 11

Blister Ck'd both sides faces "

" " one side "

Edge parallel to 1

Angle V 1

The trucks dont seem to  
do any good in permitting  
gas to get out.

491 E

Take 6 - 1412 blanks  
use trucked blank mounds  
on them, & use ~~same~~  
schedule as you  
transfer with -

Blanks not brushed  
after inspection,  
Transfer with Reg  
plates - Transfer  
same schedule  
as 495 was transferred

492 E

12 1412 Blanks not  
brushed —

Use smooth plates - flat  
+ Run them seq transfer  
Schedule for 1412 blanks.

If after inspection they  
are OK Transfer  
Req Varnish plates on  
them —

Blisters - IIII

Edges OK III

Edges Bad III

Dressing with smooth plate before  
transfer makes much worse as it  
closes pores by melting lac + gas cannot  
get out at all —

Rounding on plates breaks Var



Lugs turning out.  
fillit on 50 plates

493 F

490 E  
Duplicate ~~495 E~~  
with 1412 blanks not  
brushed But Edge the  
blanks -  $\frac{1}{32}$  less diameter

Didnt do any good The Edges  
of Varunk broken away  $\frac{1}{8}$  in  
due to rounding of plates.

Var broken here

These cracks are  
blister, torn out due to gas

494E

Edge 24 blanks 1412

$\frac{1}{8}$  inch less Diameter  
to make 12 triangles

Blanks not ~~used~~

brushed - some

schedule as 495<sup>+</sup>E

2 Red -

8 Very bad margin crack  
Cracks much worse than

with reg size blank

1 Margin crack

1 OK —

This is no good Reg size  
better -

495 E

12 1412 blanks not brushed  
Req transfer, put at contact  
when the temp reaches 180° Fahr  
put on 300 lbs pressure and  
hold for 12 minutes, cool &  
take out at 125° Fahr

Surfaces

OK ||||

V Edge pull out 1-

No Chaters |||||

Angle OK ||||

Marquck!!

Chip out along edge!

Blank Chd!

Paraloff!

No Pisters

But gas  
makes bad edges -  
Crackets etc.

496E Inspected before buffing

1412 blanks brushed. Blanking  
having  $1\frac{1}{3}$  shekac instead  
of 1 shekac

Reg schedule on transfer

OK 111 III

CK Blsters allowances - 1  
not ckd

gas cks at Edges V etc III - not ckd  
62 blank

Only 2 blsters on this  
Run + its reg schedule

The shekac dont do the  
biz apparently -  
perhaps it wants  $\frac{1}{4}$  less  
due than reg - proportionately.

497E

Reg Varnish plates run  
3 hours at 230 instead of  
 $1\frac{1}{2}$  hours to get more  
gas out of Venser -  
just added  $1\frac{1}{2}$  hours more  
to reg oven schedule  
at the high point 230 -

Separately prove regular  
1412 with transfers  
using alternate bank

Put away April 27 - Don't say if <sup>cost</sup> anything wrong  
Reinspected May 8

May 8 - 1. Believed up - poor print appears

2 flat " "

3 flat " "

4 " " "

5 " " "

6 dished " "

Surfaces good as at 1st -

Sept 12/16 -

Reinspected May 24 1916 -

May 24



dished (and



some



all



bad



1 - 2 pulled out - can't be sure was  
in originally think they were) dished



dished some -

surfaces about same -

All are much more

dished than on

May 8th -

Surfaces about as  
original - no defects  
had come in kind of  
even sea - except  
narrowly all have some  
run out,

498E

6 of them

Use reg 1412 brushed 1 gram  
blanks, ~~press~~ press these  
blanks with Tracked moulds  
instead of - Varnish plates,  
Use reg transfer schedule  
Except final pressure  
to be 500 lbs' -

NOTE

Surfaces better than they  
were 2 yrs ago, no Run Out,  
and nearly as good as our reg  
blanks made now - no use the  
with little more brushing  
or Cars think we can get surfaces  
nearly as good as 1412 transfer  
Van plate  
Will take up Expiry with them



499E

1508 Hoffman

12 blank 1412  $\frac{1}{3}$  more  
Shells - Transfer with  
Req plates - Brushed

Put at Contact needs just  
leave pin, when temp  
reaches 180° Fahr put  
pressure at 300 lbs +  
hold for 12 minutes  
Cool to 125 + remove

This is to compare  
with 496 - made with  
Req Schedule

~~All analyses of the blank  
as per the test of the  
Dodge wall (see below)  
The results~~

Padding 01 is too much prevents a  
full blown printing but 20% good  
compared to new pad material which  
prints Dodge wall on some pull-off  
or mould in some

Think more than 49%  
which had very blank

1508 - flows very much  
more than 1509/blank

probably no gain -  
Certainly not to put any  
more dot in -  
as probably Conduits don't  
stick to dot like it sticks  
to 1509

Only defect? blank edge crinkles  
probably 010 padding did  
it + padding may not be  
necessary with this reason

508-E 11

Use Hoffman 1508 blank  
1's has - brushed -

Press the blank with  
Tracked + Menic Moulds  
no transfer used,

Schedule -

Put Contact, when  
temp reaches 180° Fahr

Put pressure to 500  
lbs + hold for 12 minutes

Cool + decrease  
at 125°

501 E Inspected before Bluffing

1412 Brushed blanks —

Use the special music room  
plates blown 20 min with  
big restaurant fan @ 10 Edge

Reg Schedule — Reg to check

OKI

OK Sides III

Edge Blistered III III III

Angle Ch faces

Edge Blister notched III

Brushed blanks at edge III III

Blister Not at Edges — III Very large

III

I

II

III

III — same

Very large

This shows what a great  
difference it makes according to  
how plates are blown

502.E

sent

Flow 100 plates with 25 cc  
of Regular Varnish, in Music room  
Bake Regular -

Transfer 1:2 1412 blanks  
brushed, with above plates  
regular schedule for 1412  
blanks -

one side Red blisters long at edge ch'd. ||| <sup>ok</sup>

Big Blue 1 side ch'd ||

OK |||

ch'd at Edge from a V |

Cannot stop blisters at 300 lb  
pressure with reg blank it  
is too thin & also too dense  
dont compress enough -

503 E

Paint 30 Varnish plates  
with 3 coats of brushing Varnish  
drying two hours between each  
layer + 2 hours after

~~Bake in oven~~ Bake  
Bake in oven Reg schedule

Transfer on 12 1412 blanks  
brushed - using seq schedule  
used for 1412 blanks

504 E

Req 1412 bleaches - brushed  
one foot Dipping Varnish

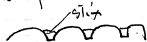
Dried two hours -

Printed direct on 1412  
schedule 300 lbs final -

Printed with regular  
working records now  
being used a net paddle

The surface appears about as  
good as regular records -

Bridge walls pulled out  
in spots on many sheets <sup>now</sup>



This is because veneer too  
loose - But 9/10 is due to net  
at all in spots -

OK III IIII.

Pull out at hole not covered  
probably with var lac ~~stick~~ /  
Parallell Cks 1 will idgo out  
Marqu Ch 1 -

## NOTICE

$\frac{1}{3}$  lac is best blank  
for direct as Edges are  
good No Crush

But must not pad mould

nearly all have spots  
that dont print full  
hence must improve  
blank + improve  
surface by 2 coats or  
other means -

505 E

Dup 500 but use regular  
music working moulds now  
in reg use -

Print direct on blank of  
500 E Hoffman 1508 -  
brushed

Schedule -

Put at contact needle just  
off pin - when temp reaches  
80° Fahr put on 500  
lbs & hold for 12 minutes  
Cool & remove at  
125° Fahr

505 + 506

Wear leads on 500 E <sup>504</sup> + ~~400~~ E



507E

Hoffman Make several  
hundred blanks duplicate  
of <sup>your</sup> "1508" containing  $1\frac{1}{3}$   
shellac -

Make them good, ~~and~~  
be sure powder very fine  
Screen it in your high  
angle screen to get it very fine -

508 E

Hoffman to furnish  
 $\frac{1}{2}$  gal Reg Var, but add 15%  
more alcohol to it  
I understand 145 alcohol to 100  
Resin is used  
to get 15% more alcohol.  
21.75 more alcohol should be  
added making 166.75 alcohol  
to 100 Resin — This alcohol  
can be added to the reg var  
already made

Duplicate this but  $\frac{1}{2}$  gal  
with 25% more alcohol added  
or 36.25 added making  
total 181.25 alcohol to 100 Resin

Want to flow thin var plates +  
Reg var too thick -



510E

Hoffman-

Make 200 blank with  
1.66 of shellac instead of 1 shellac  
finest powder

~~and about 50 blanks to~~  
and about 50 blanks from  
this lot of powder  $1/32$   
thicker than usual-

50 blanks  $1/16$  thicker than  
usual

50 Blanks usual thickness

sew balance powder

Moore says that in the past the working moulds had generally high & low spots, which would show up bad on a direct print, by not filling in a spot, & if this was not known it would be hard to the blank.

He says now that he has got moulds dept to stop it so that all new working moulds have no uneven spots, varying more than 1 or 2 1000ths.

This is very important if Direct printing is successful

## Notes -

It is impossible to make transfers without slaters unless the blank can be compressed to take care of thick & thin. Varnish also of the spotted irregularities of the density of the blank itself -

All blanks have spots which are less dense than other parts of the press, also lower & higher spots -

If you print direct with a music mould on the blank itself. There will with say a pressure of 300 lbs be many places not filled. If you raise pressure to 500 lbs the unfilled places will diminish. If 700 lbs is used 1/2 of all the blanks will show spots not filled.

on both sides. - If now  
The blank is made more  
dense or the same density  
but thinner, The unfilled spots  
will increase in size +  
number -

If 1000 lbs is required to make  
a 100% fill by direct printing  
The only way to get rid of  
this high pressure is to make  
the blank thicker, or put more  
shellac in it, or make less  
dense powder, the latter is  
objectionable as it makes  
both surfaces -

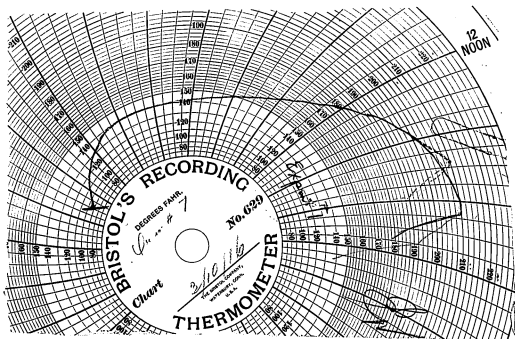
Plasters are entirely due to  
a greater density in the blank  
so its less compressible

511 E

Print Transfers of 509  
with Music Moulds.

If not enough - use ~~other~~  
Bunched 1412 blanks

[ITEM(S) FOUND IN BOOK]





[ITEM(S) FOUND IN BOOK]

9/13/16

25 grams powder

weight glass & powder

86.80 gms

weight water 87.300

87.300

86.280

1.020

Final wt

[ITEM(S) FOUND IN BOOK]

Mar. 6, 1918.

Mr. Edison:

I want to call  
your attention to the condition  
of our Working Models, they  
are in a very bad shape and  
some of them are running  
to land, I looked at several of them  
under the microscope and  
noticed that they are bit  
and a bit much, two causes  
twisting little spots and cracks  
~~these~~ <sup>which</sup> are very annoying

Smellie

**Notebook Series -- Notebooks by Edison and Other Experimenters  
Disc Record Book No. 11  
Notebook, N-16-04-27**

This notebook was used by Edison during April-May 1916 for notes on experiments to improve the manufacture of disc records. The entries describe a sequence of experiments numbered from 1000E to 1055E. Most relate to attempts to print music directly onto varnished record blanks without the usual intermediate transfer process. Included are tests involving different varnish compounds, variations in the number of coats and methods of applying the varnish, and differing amounts of pressure and baking schedules. Flaws and successful results are both noted, along with the title of the musical selection used in the tests. Many entries include a summary of acceptable and unacceptable prints. Several entries pertain to efforts to print on discarded blanks; others give the results of "breaking tests" to determine the fragility of the test records. There are also references to blanks used to train workers learning to varnish or brush records. At the end of the book are calculations regarding the cost per record produced. Some notes are in the form of instructions to Sherwood T. (Sam) Moore, Archie D. Hoffman, or other employees. Additional notes on some of the experiments in this book can be found in N-16-04-26, Notebooks by Other Experimenters—Phonograph Record Experiments—Miscellaneous Disc Composition Books. The front and back covers are labeled "No 11." The pages are unnumbered. Approximately 150 pages have been used.

R 582  
*Acme Co.,*  
MFG. STATIONERS.  
95 JOHN ST.  
AND  
19 PLATT ST.  
NEW YORK.

April 27 / 1916

Experiments on no transfer  
Record, only Condensate  
Varnish - Direct  
printing on blank -

64.5% fibers  
25.8 chex  
9.6 Lac

20 cross blanks  
130 lbs fibrous  
12,000 lbs fibers  
4870 " chex  
1870 " lac  
200 " or 30 gal absorbent

1412 Records

Weight

Without Venice 411 @ 433

With Venice: Var. from 1 to grain

Edin.

Total Average

423 grams

1000 E

Hoffman make some blanks  
about 200 more or less with  
 $\frac{3}{14}$  lac instead of 1 as now

~~Hoffman will not~~

~~Moved 24 Blanks~~

24 "  $\frac{1}{2}$  the other

24 "  $\frac{1}{16}$  "

While the Resin is reduced the  
Alcohol is the same as  
when 1 lac is used

This powder works  
better than any of the  
others in moulding

Bronching Vase is #1413  
5% of description check

1001 E

1. Make <sup>Ac. int</sup>  
50 1412 blanks - Brush with  
2 coats of varnish dry 2 hours  
between each coat, + 2 hours after

12.  
Then print direct on blank.  
with 16 Tracked moulds +  
6 mosaic moulds.

Schedule. Put at contact  
needle just off pin - when it  
reaches 180° Fahr put  
pressure to 500 lbs + hold  
for 12 minutes -  
Cool + remove at 120  
to 125° Fahr

Not so good as 1002  
The extra 5 min. was  
an improvement.

1002 E

REV

Use 12 blanks of 1001

Print direct on blank on following  
Schedule -

Schedule Put at Coileast  
needle just off pin - when  
it gets to 180° Fahr. put  
500 lb pressure on it hold  
for 20 minutes - cool &  
remove at 125° Fahr

Pretty good, but fern outpans  
mechanically good -  
Surface good as Rev

**NOTICE**

Double brushing is an  
improvement over single  
Brushing or Coat but must  
be put on more even & flats  
get rid of + not filling in spals  
clipped -

Print OK III III as far as prints is concerned  
 only blank on far give good print by eye  
 at least

Edge all Crushed II  
 var Pull off Edges III  
 flat filled small spot may not round  
 pulled off Edges & Centers both sides I  
 Blank Crushed in 2  
 Surfaces by Ear Good -

None are comol, Shellac must  
 be brot up by alcohol that goes  
 down in this especially porous  
 Composite adunble blank.

The small amount of here  
 permits fibres to spring up & down

I think so fast to moulds  
 Cant get off 3 others thick  
 around edge

little more brittle on cheap  
 test. Cause req 1412 but OK

**Strange**

when they stick to print moved  
 over

11 Tested 1 broke in 2

surface of original blank  
 with lac  
 surface after some filling up & down  
 with lac  
 1 1/2 - will hold 1000 more based var  
 1 1/2

PHENOMENON

1003 E

Heat

Use 12 blanks of 1000 E

Put two coats with varnish on  
 drying 2 hours between  
 coats & 2 hours after use

3/4" lac

Print direct on blank  
 with braked moulds & Muske  
 1 quad surface mould  
 among them -

Schedule - Put at contact  
 with needle off pin when it  
 reaches 180 Fahr, rest on  
 500 lbs & hold for 12 min  
 Coals recursive at 125°

Sticks badly to moulds -

Cant get off by soaking in either  
 Alcohol or ROH and trying  
 mixture of both, No. 4 strong OVER



for direct printing # 1000 is best  
for filling 100% may be due to  
some extent as surface more matte  
& it will hold much more weld  
Varnish which caused a fill

~~Blank 1000 is best for filling 100% may be due to some extent as surface more matte & it will hold much more weld Varnish which caused a fill~~

1004

1413 Van 5% Carbon Black

Moore has some 1412 blacks  
brushed. Baked at 130° Fahr  
for 5 hours

(12)  
Print with big music moulds  
now being used

Schedule:

Put at contact, needle  
just off pin when lens  
reaches 180° Fahr put pressure  
to 500 ~~lb~~ lbs for 12  
minutes. Cool & vacuum  
at 125° Fahr

Blanks are old but so fine surface  
more surface noise = small part made  
from Coombs papers made before had good screen  
Mechanically good not  
so good as 1508 blank -  
Don't fill as well as 505

Blanks Cracked 1

OK #11

Not filled at Edge both sides //

" " one side //

Blanks broken 2 days 1

mid

50% -

1005 -

Make 50 blanks 1412

Put two Coats of Varnish on  
Drying two hours after each  
Coat,

Use the same Varnish that  
we use for flowing plates  
without any damp block in it.

Print direct on blank with  
Regular Music Moulds now  
in use

Schedule - Put at contact  
Needle just off the pin -  
When temp reaches 180° Fahr  
Put the pressure to 700 lbs  
& hold for 12 minutes  
Cool & remove at 125° Fahr

~~1005~~ - Surface not quite as good  
on new cracked blank as No 1008  
though very slight difference.

1006 -

Take 12 Direct printed records, put on one coat of varnish, dry two hours & reprint them with Reg music moulds now in use

Schedule - Bring to contact so needle left pin -  
When temp reaches 180° Fahr  
put pressure to 700 lbs for  
12 min - Cool & remove at  
125° Fahr

1007-

Reprint 12 Direct printed  
records - 1001

### Schedule

Bring to contact till  
needle leaves pen - Then  
when when temp reaches  
180° Fahr put pressure to  
700 lbs for 12 minutes  
then cool & remove at  
125° Fahr

They do not reprint dont reform-  
film on surface stretched so much  
it cracks very much - & when  
cross each other no print  
must be rewarmed -

## NOTICE

OK. 111

Poor print both sides 111  
Slight poor print one side 1

Some records has blunt edge broken long 1  
Same " " " V 1

This is better than

1005 -

But perhaps  $1\frac{1}{2}$  has  
would be better than  $1\frac{1}{3}$   
as 1508 is -

Found 1 pair moulds not  
lined up which caused  
one edge to flow excessively  
at ~~the~~ chip edge -

1008.

Take 12 Blanks Hoffman  
1508. put two coats  
reg brushing Vars on  
drying 2 hours after  
each coat,

Print direct on blank with  
Reg Messic maccels

Schedule.

Bring to contact till needle  
leaves pig, then when lamp gets  
to 180 Fahr put pressure to  
700 lbs for 12 minutes  
then Cool & remove at 125  
Fahr

Tracked blank surfaces are fair  
but it still is too much must be  
improved although about like Reg Products.

1009

Dup of 1008

Except change the schedule  
to 900 lbs pressure for  
12 minutes -

OK.

Not filled - both sides opposite III III I

OK IIII  
Poor print 1 side. IIII  
" both sides IIII

1010 E

Use 12 blanks from 489 E Baked

Put one coat varnish on dry  
2 hours

Print direct with regular music  
moulds now in use

Schedule  
Bring to Contact  
needle from pin - when temp  
reaches 180° put pressure to  
700 lbs for 12 minutes - Cool  
& remove at 125°

OK IIII  
Poor print 1 side - sharp & peculiar IIII  
" Both sides II  
Platenk crunched all across I

Blank does not even up with  
700 lbs as it dont flow enough  
to even up -

Surfaces on 1011 are  
33% better than 1010  
with only 1 Coat

NOTE

2 Coats better  
than one Coat

1011 E

Dep of 1010 E  
But put two coats <sup>var</sup> on  
Drying 2 hours after  
each Coat

Use same schedule  
as in 1010 E

Dont think there  
is ~~any~~ advantage  
in Baking blanks  
Req Schedule -



Not less than 700 lbs  
Can be used -

Possibly 1508 blank  
will do better -

The surfaces are as  
good as Regular - +  
most of surface noise  
is in the mould themselves

SO FAR THIS IS

Best

To get surfaces perfect if  
mould is perfect, would be  
to raise angle of screens +  
make the powder a little  
finer -

1012 E

Dup 1001 -

Except change schedule  
so final pressure is 700  
lbs for 12 minutes

NOTICE

Nearly every one is filled  
The spots + ferns have  
disappeared - only two  
records show lack of  
fill in small spots +  
these are due to blank  
as they occur opposite  
on both sides

Tests for Prints 11 Records

Satisfactory

OK IIII

Traced M - Moore (hand)

fern both sides opposite III

fern 1 side II

Both in Poor Print 5 III

Broken Edge I

The Music is fine. The surface on 2nd Reprint is V rating - which is better than any regular all fibre prints -

I expect the 3rd Reprint will be even better

11 Records

1013 E

Reprint 12 Direct records - already having music on but before reprinting put two coats of Weld Varnish on Dry 2 hours after each coat, ~~use 800 lbs~~

Schedule = Bring to Contact needle just off pin - when Temp gets to 180° put 800 lbs pressure on for 12 minutes Cool & remove at 125°

For Thin Flowed plates  
Thin Varnish No 1

15% more alcohol added to  
reg Varnish 150g-508E

On this lot of var. we use ~~100~~ instead  
of 15g al to 100 Resin which is  
regular var we add 15%  
more alcohol bringing the  
Total alcohol up to 182.8g

No 2 Var same as above  
but total alcohol 198.45  
instead of 15g Reg -

1014.E

Flow 100 plates with 15 cc  
No 1 thin Varnish, 15% extra  
alcohol used

1015 E

flow 100 plates with 15 cc  
No 2 Thin Varnish which  
has 25% Extra alcohol  
added to Reg Varn -

1016 = 7 months after  
11-26-1916 (Resumption)

- (1) ✓ good surface
- (2) ✓ good surface
- (3) ✓ good surface
- (4) ✓ " "

7 months show ok - very  
good & satisfactory  
services - far better than now

11/11

1016 E

Tried Ott to bake 3 or 4  
Direct printed records up to  
175 deg Fahr - Taking  
3 hours to bring them  
up from atmospheric  
temperature to 175°  
Cool down in say 1 hour

Don't seem injured think  
perhaps surface may be  
a little harder -

Shows Direct printing,  
is ok as far as this stand up  
concerns

Out of 11 Count within -  
as 1 blank was cracked

OK III III

Blank ok before it was varnished

Cracked parallel at 1/4 in from 1" long  
slack to round of hole II

Evidently as 1508 blanks melt  
in lac fragment out at Edgo

1017 E

1508 Blanks - 506 blanks

Put 3 coats of varnish on blanks

use reg weld Varnish, dry  
2 hours between each coat

Print with 10 pair reg music  
moulds + 2 pair of tracked  
moulds -

needle off pin  
Schedule - Put at contact  
when temp reaches 180° Fahr  
Put on 800 lbs for 12 min  
Cool remove at 125° Fahr

Flat edges not flowed out

Quality of 17 + 1018 is  
Very poor - Rotten -

~~Worse than regular records for musical quality~~  
1017 + 1018

First groups to perfectly  
fill + perfect,

Surface fair -  
Only want little  
improvement in  
surface

Will look for quality  
of music

Note diff between a squaring Edge blank +  
+ flat Edge blank

1018 E

~~All these are which  
to be used in various parts of~~

These all free release

Duplicate of 1017 E

Schedule changed so  
they are cooled down

Cold before taking from  
the press -

OK III III

1 pull out (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

91.5

~~Note~~  
~~1017 E~~

Also note 1017 just as good  
taken out 125° except at hole



1019 E

Hoffman to make a gallon  
of 5% lampblack welding  
Varnish, same as now used  
but with the regular  
amount of Sandrac  
used in Reg Var.

Some look like poor print  
+ bad but its in words &  
sounds OK -

## PHENOMENON

Think this is <sup>1500</sup> fine  
just out from  
Hoffmann

The quality of the music  
is very much different with  
same tunes as it is on  
Reg thickness blank

The latter is fine while  
the thick blank 1020  
sounds as if slipping  
+ it is not enjoyable  
overtunes gone apparently  
not so clear, something  
radically wrong

April 29/1916

1020  $\leftarrow$

Printed with Ern Moulds  
fund

12 Blanks  $\frac{1}{16}$  thicker -  
than reg 1412 = Put on One  
Coats Varnish Dry 1 hour  
after 1st Coat + then after  
~~2nd~~ Coat, Rubber press 500 lbs -

Use Music Moulds + 2 Tracked  
Moulds

Schedule Put at Contact  
needle off pin - when temp  
reaches 180° put pressure  
to 700 lbs for 12 min  
Cool + remove at  
125°

OK.  $\overline{111111}$  100%

These are first good prints  
we get from direct printing

1021 E

Dup 1020-

But with 1500

$\frac{1}{32}$  thicker -

1022E

Hoffman make 24  
1508 Blanks  $\frac{1}{16}$  thicker  
But use 1000 lbs  
on the Rubber.

Don't put until  
further down

1023 E

24

No. 1508 Plank  $\frac{1}{16}$  thicker  
E 1022 - made by Hoffman  
with 1000 lbs on rubber  
put 1 coat on of  
brush var & dry 1 hour -

Hold till further order

1024 E

1005 was the 1<sup>st</sup> print  
1013 " 2<sup>nd</sup> "  
3<sup>rd</sup> Reprint of 1013

Duplicate 1013 by putting  
on 2 Coats Weld Varl over the  
record after 1<sup>st</sup> Coat Dry  
2 hours - After 2<sup>nd</sup> Coat  
dry one hour

Print again with the  
new moulds

Use same schedule  
as used in 1013

~~Print~~

OK both sides IIII

One side OK other side Poor print III

Poor print both sides IIII

OK mosaic pulled out in label - 1

The broken blank record  
improves

1025 E

2nd Reprint

Reprint 1009 -

Put 2 Coats brush var on  
After 1<sup>st</sup> Coat dry 2 hours  
after 2<sup>nd</sup> Coat dry 1 hour -

Print with music moulds

A same schedule as

1009 -

OK III, II

Couch II

Poor print blow II

Poor print 1 side form I

Quality on Reprint OK  
surfaces V to VV -

1026 E

Huffman

Use 1508 Powder.

Press one mould in 12" Ram  
press. To 700 lbs.

This is equivalent to 1800 lbs  
on small press.

See if the rubber stands up  
& it is practicable

Don't use any heat



1027 E

Huffman

Make 12 1508 blankets  
Reg thickness pressed  
with Rubber pad in  
big press at 700 lbs  
& then struck off

OK 1  
Poor print 1 side IIII  
" " Both sides IIII  
Sluck to mould IIII  
Sluck Opp both sides I

pulls out  
" "

Can't Reprint on this blank.

Quality of reprint  
is even better than  
our Regular record

Yet the first Print the  
Quality of music was  
Rotten

Reason is that all the deforming took  
place on 1st print & when Reprint  
was made there was no further  
deformation -

1028 E

2nd print

Reprint 1020 E  
Two Coats Var after 1st  
Coat Dry 2 hours -  
after second coat dry  
1 hour

Print with special  
music moulds

Same schedule as  
1020 E

# NOTICE

The surfaces are very  
fine on Reprint  
Rated V to VV  
according to mould  
surfaces +

The Quality is A1-

This ~~group~~ blank  
will I think  
Reprint many times

1029-E

Reprint 1003.

Give them 2 Coats weld  
Var - after 1st Coat Dry  
2 hours. after 2nd Dry 1  
hour - Use fresh Varant

Use same schedule

Poor print 1 side III

~~OK both sides~~

Poor print both sides IIII

OK both sides II

2 OK.

As the 1st prints were bad all  
around Edges from sticking  
to mould it is probable  
this blank will be good for  
reprints

If we are to get our good results, will  
have to use Coarser paper than that  
we got them with — When veneers  
used

1030 E

Use Hoffmans 1510 blanks  
Transfer with reg Varnish  
plates, Reg schedule  
for Reg 1412 blanks.

Red + blistered Ckd 9  
Single cracks 2  
OK 1

Crushed Edges on some

Edge blister Ckd 11

Blister both sides 1

Blister ~~both~~ sides 111 small nicks 1

Cracked 1.

This dont duplicate  
our old good results nor  
any where near it.

1031 B

Hoffman Make up 50  
more blanks leaf Ketchum  
300 lbs Rubber process  
from # 1000.  $\frac{3}{4}$ "<sup>th</sup> diae

Very little flow.

- 1 - filled both sides - Crushed edges
- 2 " " " " " "
- 3 " " " " " "
- 4 OK
- 5 OK - small piece edge broken off
- 6 OK " " flaked var at edge

Flaking off of varnished surface film at edges is because it sticks to print moulds

Surface on some good rollers  
bad rollers probably due to  
bad varnishing + weight of move

Quality fair but don't  
think it clears as well  
thin non flowing blanket

1032 E

Use 6 of 1032 E

Put on 2 Coats ~~of~~ <sup>Reg</sup>

Weld Varnish —

After 1st Coat Dry 2 hours  
" 2nd " " 1 hour

Print direct with music  
moulds,

Schedule - Put at Contact  
till needle leaves pin when  
reach 180° put on 700  
lbs for 12 min —  
Cool & remove at 125°

The other 6 can be 1412  
brushed blanket

↓  
mounted 4 out of 24 sticks even  
after soaking Al or KOH.  
Possibly mistake made

These blanks which filled 100%  
#1000, did not give good transfer  
Only 1 ok bal blisters red  
but this was only at 300 lbs  
yet when we had a 1000  
powder old 1412 gave right  
along 100% both on transfer  
& print no swelling at edges  
blanks brushed

Up to this point #1000 is the  
only blank that filled & printed  
100% when no eye defect seen

The only other 100% print was res  
powder 1/16" thick blank 500 rough  
pressure - while 100% by looking  
were very much less by eye  
inspection

So far all troubles of every  
kind & character that we ever  
had is traced right to blank

To fine powder in relation to the  
amount of lac produces enormously  
diff results, With 1 1/2 part lac  
blank flaws at edge & you cannot  
fill good on 800 lbs pressure  
Direct printing - if lac is  
reduced to 1 part some don't  
fill at 800 lbs flaws out some  
at edge With 3/4 part of lac  
100% good prints made  
At 500 lbs pressure no flow  
at edges but sticks to music

This blank with Var on gives blisters  
Same blank without Var no blisters

This shows vapor & gas of  
Weld Var tends to make.

Red blisters & as Var has  
closed the pores it cant  
get out, -

With this very fine powder  
3/4 has a equivalent to  
coarser powder and 1 has

1033 E

Transfer with Reg Var plates  
12 #1000, <sup>3/4 has</sup> reg thickness


blanks Without brushing

Reg 1412 Schedule 300 lbs  
pressure

OK for blisters!

Edge broken!!

Wholly OK!!!

Angle  due to broken edge!  
parallel chs 1/2 of sq in!

Dead flat square edge to this blank



Notes -

Blanks which squash out at Edges probably deform the music. →

Note if this is correct against a flat Edge blank -

On a squinting blank that swells at Edges the quality of Music is rather inferior if a reprint is made the quality is fine - Probably because an Reprint is done not deform or swell any further at Edges -

This is New

Another proof is that #1000 blanks that do not swell at Edges give very fine quality -

1034 E

Hoffman.

Make a quart or two of  
Wald varnish, with Sandrac and  
10% of lampblack, well ground

9 part 5 of these in water May 1 11 am 1914

OK fully LM II

Small spot opp. dont print its where stain is from that pull out Moore thinks moulds are defective III hollow spot in mould

Crushed Edge II

This technique stops flaking at edge entirely.

Reflects one Crushed Edges + spot poor fill - sharp edges

Moore thinks hollow spots in mould or bad blank

It might be bad varnishing but unlikely as its on both sides -

Quality <sup>many</sup> OK - surface best yet + perfectly satisfactory - This varnish technique is OK

After soaking in water 4 hours Edges swell up - But I find that where swollen & turned up, blank had been Cracked or broken at before but showed no evidence before put in water. 7/8 of blank edges OK & 2/3 surfaces not affected by 4 hours soak

1035 E

Varnish 241 #1000 Blanks 1510

regular thickness - put 3 coats on

After 1st Coat on both side bake in Fred Oth Oven for 1/2 hour at 130° then put second coat on + bake 1/2 hour. The same with 3rd Coat. used Var 1019E

Print with rag flat music moulds, 12 of them - quiet music

Schedule - Bring to contact <sup>as required</sup> 1036  
needle just off pin. When temp gets to 180° put on 700 lbs for 12 min, Cool down Cold + remove.

### Notes

These records break on 2nd good drop. 4" on hard wood floor  
~~later another one didnt break in 10 drops~~

If my green blotting pad put on floor, it drops any number of times OK

OK for Drop test - I think

Edge varnish flaked, HT I  
fine shell coats in music 1  
buffed OK full print both sides HT III  
Crushed Edges II  
OK Everything III  
lack of var 1 1/2 sp. 1

All full prints -  
flaking of Varnish off at Edges among  
plates clean to music - -  
to main trouble, 2nd troubled  
is that two records had V crushed  
Edges -

Steam went low  
80 lbs -

The small 1/2 spot not filled - Music  
is due to bad Varnish technique

Not enough var - not  
enough pressure NO 1035  
proper technique

1036E

50 Blanks E 1000  
Req thickness of blank  
Varnish with 2 coats put on  
regular way Drying 2 hours  
after 1st Coat + 1 hour after  
2nd Coat. Using Varnish 1019 E

Print 12 with flat music  
moulds having 2 trashed  
moulds -

Schedule Put at contact  
needle left the pin - When temp  
reached 180 put on 500 lbs  
for 12 minutes, cool down cold  
remains

Note

1037 E      || only in the hot

Duplicate 1036 E

Only change schedule  
so pressure is 400 lbs  
for 12 minutes

OK ||

Poor print both sides ||||

Cornel both sides |

Stick to mould | side only |||

Flaked off edge | side only |

Note 3 stick to mould. This pressure  
while it may harden var is not  
sufficiently welded by the low  
pressure of 400 lbs.

Quality measure OK - surface not near  
as good as 1035 due to 3  
cycles & bake between in 1035



OK III II  
Commercial III

Black cracked at edge in  $\frac{1}{2}$ " both sides

Spot var pulled off on mold 1 side 1.

Commercial is chipped - little on  
Edges but Edges out,

Quality of Mousse OK  
Surface  $\checkmark$  some  $\checkmark\checkmark$

Put away for time  
test - flatness,  
Quality Mousse  
Surface  $\checkmark$  warping

1039 E

Note 17 hours

# 1000 blank.

1510 Blank

1031 E

Varnished twice 1<sup>st</sup> coat dried 2 hours

2<sup>nd</sup> coat stood all night to dry

17 hours -

Weld Var 1413,  
Reg -

Print 12 with flat mousse  
moulds having 2 cracked  
moulds -

Schedule, Print to Contact  
needle off pin (clean 180° recess)  
put on 4 lbs lbs pressure for  
12 minutes - Cool down  
Cold & remove.

Save X separate, to var spot only  
" XX  
" XXX  
X - OK but big pull out in here previously !!

OK. III

Poor print both sides II  
" one " III  
S.S.

1040 E

4<sup>th</sup> Reprint

Reprint 1024-

Putting 2 Coats var over  
use 1019 var.

After 1<sup>st</sup> Coat dry 1 hour  
after 2<sup>nd</sup> Coat dry  
1 hour

Use music moulds  
& same schedule as

1013 800 lbs -



1041 E

Hoffman

Make dog 1510  
blanks - which will be  
around 180/1000  
think if you can  
using 800 lbs on Rubber

1042 E

Huffman

Make every day until  
notified to stop -

300 blanks ~~210~~ some thickness  
as 1412 210 @ 220

with 800 lbs Rubber pressure

Woods to arrange to  
view these then sleep  
to Stock Room using 2  
Conts for according to 625  
teaching - Saving discards  
for revarnishing & reprints  
& keep account

These would have printed  
OK & think on good @ 1000 lbs

Moore thinks moulds striking  
blank too thin -

Saw some edge cracks on one ?

Mus. is quality good -

Surfaces not quite so good  
as 1035 E

1043E

180/1000 (thick)

Varnish 12 of 1041 by the

Technique of 1035 - 3 coats  
& battery bed down -

Print Req mus. is moulds

Schedule same as 1035

OK IIII

Poor print ~~both~~ both sides. III

Corned

not filled in fine spots in I

Poor print one side II

50%

May 1<sup>st</sup> 1916

(1035)<sup>1035</sup> is the

Varnish & Print Technique  
preliminarily adapted to  
go ahead with Comel  
work — Blank 1510

700 lbs on Rubber &  
225 @ 225 thickness 98%

then 180 mesh —

5 2-<sup>3</sup>/<sub>4</sub>

1044 E

5<sup>th</sup> Reprint

Reprint 1040 - Same schedule  
but Var only on bad spots.

Pull outs of ferns & spears  
are due to air & not  
poor prints in some  
Cases - but generally  
uneven varnishing  
& some cases that blank

1045 E

1st Dup

Duplicate 1035

Right along - want several  
Duplications 1st

(OK  
Poor print near label 3x1

(Pull out - poor print  
"

(OK  
OK

(OK  
OK

(OK  
OK

(poor print few dots  
"

(Pull out 1  
poor print

(OK  
OK

(Poor print  
poor print

50%

(Ferns half  
Ferns

(OK  
OK  
OK  
OK

None of Edges broken out

~~2nd Dup~~  
2nd Dup 1035-

{ Poor print small spot  
OK

{ OK  
poor print fine specs -

{ OK  
poor print fine specs

OK  
OK

{ OK  
Pull out 1/4 sq

41%

OK  
OK

OK  
OK

OK  
OK

~~33%~~

{ Poor print Specs  
poor print Specs

OK  
Specs

OK Council - pull out in label  
OK  
covered blank edges  
covered

Surfaces generally are  
not very good these are  
another set of moulds

↳ Vesey - possibly  
the surfaces are as good  
as req - One of the  
New tracks ~~is~~ <sup>is</sup> has a  
very good surface which  
in certain places should  
be increased from 700 to 800  
to diminish surface &  
grit ballers fill -

12/15/00

3<sup>rd</sup> Dup 1035

{ OK  
Specs poor print

{ OK  
Pullout & sqi rim -

{ OK  
OK Concl.

{ OK  
Specs on outside pp

{ OK  
OK

{ poor print 1" off  
poor print

{ OK  
Specs

{ OK Concl

{ OK Concl

{ Specs opposite form

{ Specs form  
Specs form

{ OK  
form spec -  
poor print  
OK

New set  
Quiet Words

16.5%

080



2nd print  
Reprinted the 4 again on  
1000 lbs pressure

OK  
OK

OK  
OK

Chipped Edge  
-11"

OK - But Salin + mat  
OK filled in Spoked -

Will put one Coat Var  
on + Reprint at 1000 -

Varnished 1 Coat + reprinted at  
900 lbs -

(poor print)  
OK

(poor print)

(poor print)

(poor print)

1 Coat not enough - wants  
3 Coats Baked after each coat.  
Salin wants not goodly.

Put 2 Coats on. 2nd Coat bleed  
up in oven 130° Fahr - gives be  
get higher than 130°

1 Coat would have been OK

Printed at 1000 lbs -

1 Ment OK  
2 Same OK

3 Same OK

4th Dup 1035 -

OK

Fern 1/2" near label

OK

Fern 1/2" near label

(space Balls side of sp

space

space Balls side of sp

space

4 patched record, Varnish  
only put on bad spots  
not on balance of record

The patches are generally  
OK + Cant be seen - but as  
unpatched part was not  
varnished + given Salin +  
if fails to print at places  
think 1000 lbs would  
make whole record good

4th Drip — 1035

(Cornel  
Cornel)

} pull out main handle

(OK  
OK)

(OK  
OK)

(Ferns  
Ferns) } off

(OK  
OK)

(five bottles 5-16  
OK)

(OK  
OK)

(OK  
OK)

(OK  
OK)

(OK  
OK)

OK  
one

OK  
OK

505 bottles on first feedline - Trouble present on 4th

91%

500 lbs pressure  
1412 Tlankis - 1313 Van Rag

Used to train the Brumhies —

{OK  
OK

{OK  
OK} Commercial - pulled out in label -

{OK  
OK} Commercial - Edges Good,

{air trapped } Moore says fault missed  
" " " " " "

{Commercial } One spot  $\frac{1}{4}$  beyond missio  
" " " " " "

{OK  
bubbles trapped

{Air spot. near label } too close to missio  
" " " " " "

{OK  
OK

{OK  
OK

{air bubbles  
" " " "

50%

{OK  
air bubbles

{OK  
OK

NOTE on 1046

Probably wants two coats  
Each thinner than this &  
Dried in oven after each coat.

The single coat put on in  
machine is evidently too thick

Air may play an  
important part -

Probably 3 coats  
each thin & baked  
after each to get rid  
of alcohol & air -

→ NOTE

1046 E

Req 1510 blanks Van by Fred  
Oto machine, one coat, Baked

Print Reg Moulds -

Schedule Same as 1035,  
but 800 lbs for 12 minutes

OK

Concl. pull out at hole.

{ poor print  
poor print

OK  
OK

{ poor print  
poor print

{ OK  
poor print. Sagging

{ OK  
poor print

{ poor print  
OK

{ poor print  
poor print

{ OK  
fern

OK  
OK

OK  
OK

{ poor print  
poor print

33%

Starts — May 3 1916

Hereafter Hoffman

will adapt 700 lbs  
for the Rubber pressure  
as 800 lbs Cakes powder &  
batters,



This look like 850 pressure was necessary as the poor prints are very small in size & a little more pressure would print them out

12  $\frac{80}{170}$  6'

6th lot 800 pressure 1510  
3 Coats, avoid between 5 each Coats —

OK  
OK

OK  
OK

OK  
Comd

OK  
OK

Edges  $\frac{1}{8}$  in

Good Edges —

(Poor Print)  
(Poor Print) } of

OK  
OK

One 010 round pullout or dirt.  
OK

OK  
One single 010 bubble

OK  
OK

OK  
OK

OK  
Poor print

OK  
OK

66%

Note

Small spot at Edges is  
due to support pins on  
Varnishing table

Being fixed

1510-  
Round # 1 Up stairs entirely  
3 Coats, 6 mil  
between

OK  
OK

Ferns

OK  
OK

OK  
OK

OK  
OK

(one  $\frac{1}{2}$  vance gone at  $\frac{1}{4}$  from edge

OK  
OK

OK  
OK

OK  
OK

(one  $\frac{1}{2}$  vance gone at  $\frac{1}{4}$  from edge

OK  
OK

OK  
OK

(poor print on Edge small -  
OK

Think they are not varnishing edges  
enough. Thin there,

66%

Really 91%



## Round 2 up stairs

Conch  
OK

lock Van at rim

(ed

—  $\frac{1}{16}$  dia not filled, lock Van at rim

OK  
OK

$\frac{1}{8}$  out on rim, but will pass

OK  
OK

OK  
OK

( $\frac{1}{8}$  turn at Edge - lock of Van

OK  
OK

( $\frac{1}{8}$  turn at Edge

Conch  
OK

Edge blank chipped

60%

Really 100%

OK  
OK

( $\frac{1}{8}$  turn at Edge - locks Van

OK

10 Prints,

3RD Round —

OK  
OK  
OK  
OK  
OK  
OK  
OK

Crushed Edge

OK  
1/4" spot at Edge

OK  
OK  
OK  
OK

OK  
Spot to cut Edge  
from near 1.66"

OK  
OK

OK  
Turn in music 1/2 x 1/4"

OK  
Door Print

OK  
Edge chipped off

58 1/8

Really 83%

4th Round

Term in music

Good Edges.

- OK
- OK
- OK
- OK
- pp
- pp
- OK
- OK
- OK
- OK
- OK
- OK
- OK
- OK
- OK
- OK

83%

Ready 91%

It is in Mould 2 round show it,

OK <sup>margin point</sup> small spot at Edge like the other

With Straight Edge  
show Very flat.

Note.

Should we have any trouble  
in making reprints on  
account of Var not sticking  
or flaking off Condensate  
Veneer, Its Very quick &  
Cheap to Sandpaper  
the Veneer off & start with  
fresh blank



Kuter  
furniture

5<sup>th</sup> Round

Poor Print

OK at edge not due to pins

Poor Print

OK  
OK

Poor print

OK  
OK

Poor print

Coned  
OK

Chipped Edge

Coned  
OK

Chipped Edge

OK  
OK

pin dots from Van Table

OK  
OK

OK  
OK

pin on Van Table -

58%  
Really 66%

6th Round

OK  
OK

(poor print music infern  
OK

OK  
OK

(Form in music  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

83%

Colours good

# Note

The great wearing qualities of record may be largely due to the lampblack in varnish -

Also we should test a Reproducer for several days on new blanks as the lampblack may wear the Diamond.

500 Turn  
OK

## Y the Record

OK  
OK  
Cornel

- clipped Edge

OK  
OK  
OK  
OK

OK  
OK  
OK  
OK

tong spot on Edge made by table pin

OK  
OK  
OK  
OK

table pin mark

Turn  
Turn  
Turn  
Space  
OK  
Space in varnish

75%

These blanks were  
used to teach the men  
how to varnish & are  
poorly var probably.

8th Round

But these are 1412 blanks

1413 Var.

OK  
OK

- Varnish Table mark

(Poor print

" " } opp  
Big Spots

(Big Spots } opp

" " } opp  
(Blacked V at Edges  
Varnish Table spot

(Var Table spots Blank Cooled Edge

" " } opp  
(Poor print here Var

[Big Spots } opp  
" " } opp  
Large Var

[Two } opp  
Two } opp

[Blacked cracked in two -

[Print } opp

" " } opp  
Poor print

WE buffed a record after  
Edging -

The Soap used on wheel  
fills record grooves full -

If Records are to be buffed must  
use Dry wheel or wheel &  
powder -

May be so much shellac surface  
that Vener don't stick well &  
gets pulled off by music

This would imply less  
lac than 3/4 say

5-2-76/10<sup>15</sup>

9th Round 1412 Blank  
Learners trying to Varnish 1413 Var

OK  
OK

(Term Term } op in music

(Base Spite 1/2" label

"  
(Space f } op + a term on 1 side - in music

(Space } op

(Space } op in music

(Space } op

(Band Var at Edge } op

(Space only 4. in music

OK  
(Term Spot } op - at Edge label -

OK  
OK

[Blank Cracked before Var put on



# NOTE

On some of the moulds

15% large quantities of Vav runs out on top over screws & drops up some hours none + most only a little —

From Fredette think one Coat think should have 3 coats + these except 1st one put on very thin + baked 40 min perhaps 1 hour at 130 @ 135 with draught to get rid of Alcohol & air —

We would probably have less try out + forms etc

10th Round but these are  
1510 Blank Raise at Center  
filed down

4 OK forms in music -

OK  
OK  
OK  
OK  
OK

Specs  
OK

Specs Specs } of

OK  
OK  
OK  
OK  
OK

OK forms in music

OK  
OK

58%

I notice on the 4 patched records that after the 3rd print no varnish being used on the main parts of the record that on varnishing 2 coats baking after each coat 1/2 hour at 130° that in some places the var. did not weld to the Condenser surface but flaked off.

Perhaps we are using too much 6/4 and it gets too hard as evidenced by fact of it playing 500 times with no signs by Eye or Ear of wear.

Will try 7 6 1/2 & 5 (6/4) varnish & test this out.

## Note.

I think I know now what makes pull out spots & ferns.

The record is OK when pressure on but there is gas below & the swells up when pressure is released from mould or when mould is taken away & this cold blister breaks off a piece of the Thin Varnish.

The remedy is to use 3 thin coats & bake well say 40 min at 130. to get all the gas out possible.

This may not be true in all cases but I think its so in some —

I noticed under Micro Ferns had Cracks around one edge —

1047-

Huffman

Make me some more say  
A a quart of 1019 var but only  
use 7  $\frac{1}{4}$  instead of 7.4

B Also another quart 6.5  $\frac{1}{4}$

C Another 5  $\frac{1}{4}$  -

Increase to 850  
from 800 seems to tend to  
stick Veneer to mould  
+ Speers flake off -  
Cantsay yet

Note

11th Round 1510

→ 850 lbs

OK  
OK

(OK  
Speers -

These speers all pull out they stick to mould

OK

OK

OK

(Speers  
Speers -

These stick to mould + are not poor  
prints -

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

Veneer along Edge came off within 3/6  
of mould - change to sleepout  
than Edge down

75%

Must have Lampblack Varnish  
dont anchor to blank at Edges  
+ pulls off in 2 or 3 Cases

Also Varnish not having Lampblack  
flows too free in printing +  
it flows out over mouth of  
out to the platen of the press  
for more than Lampblack  
Varnish -

Will have to stick to 5%  
Lampblack -

Quality Music very good

Dont think surfaces ever  
as good as 5% Lampblack

1048 E

1510 Blank

Varnish 3 Coats Drying 130° after  
Each, put on thin -

Use Regular Transfer plate  
Varnish

Use 850 lbs

OK  
OK

(OK  
Big V chip out Edge

OK  
OK

OK  
Good

V chip out at Edge

OK

Big V chip out at Edge

Big Spec groups

Specs not opposite

OK Specs at small part run Dont sound

Vener at Edge Dont anchor

Vener at Edge Dont anchor

OK

OK

OK

OK

41%

lb  
850 is best  
for full prints  
if specs sticking to  
mould is prevented

Think it will always  
give 91% full prints →



12<sup>th</sup> Round 850LG-

(OK  
Specs — pulled off on mould —

OK  
OK  
OK  
OK

— pin point from Vnr Table

(OK  
Specs — pulled off on mould)

OK  
OK  
OK  
OK

No poor print.

OK  
OK  
OK  
OK

66%

OK  
OK

100% if stop pull off  
on mould

(OK  
Specs stick to mould

(OK  
Several specs stick to mould

OK  
Council

Edge chipped



Think Excess Lampblack prevents  
Var from flowing & filling

Most of pull out (B) bare spots  
would not washing are at  
end of music - & are large -

Don't flow -

Just as much var went  
over Edges as with 5%  
Lampblack -

Quality mine good  
Surface good

1049E

12 1510 blanks

3 Coats Var - Baked 130° 1/2 hour  
after each coat,

Used 1515 Var 10% Lampblack  
Same as other Var with 5% lam

Print at 850 lbs

(OK pull out 1/2 x 1	(space / op
(pull out / opp 1/2 x 1	(big pull out / op
(pull out / opp 1/2 x 1	(print / op
(press print	(pull out / op
(pull out 1/4 x 1 1/2	(OK pull out.
(pull out	
(OK print near edge	
OK	
OK	

80%



1050 E

Moulds were cleaned  
with Edging but not  
enough -

OK  
stick to mould space at Edge

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Edge broken

Edge Broken

75%

Cracked blank  
Clean across

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Cracked Blanks  
Clean across

1050 E

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Edge broken

Edge broken

Edge broken

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Edge broken

Edge broken

100%

1050 E

Think this lot was put on more  
Even + better inspection of Varnish  
that put on so thick

More experiment same as cell  
Dups 1510 - 850 lbs

Put Edged before printing to  
remove Varn on edge

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Edge broken

Edge a little broken

Edge blank broken

Edge broken

Edge broken

Edge blank broken

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

100%

Moore's Spec Schedule, otherwise  
like 1972 Deepa - used 1412 blank  
1413 Vari -

\*Schedules - Press warmed - brought in  
Coolest on 300 lbs for 3 min -  
then 800 lbs for 12 min

(poor print  
" " 2 1/2 x 2 1/2 spec)

OK

OK

Corner Edge broken

OK

Chipped Edges broken bad

OK

Edge broken bad ✓

OK

Chipped Edges broken bad

41%

OK

Spec stuck on Mount

OK

Spec on Edge

Specs

Specs } stuck to mount

OK

Corner Edge broken

Specs

Specs } sp - area 1/2"

OK

Corner Edge broken

Expt 19-

As 1<sup>st</sup> 2 Coats put on prior  
+ like those back. baked 130 30 min  
only last Coat put on carefully  
+ baked 130 for 45 min -

Moore

Notes Opp page  
Reg 1510 850 lbs - Van 1019  
But Coats baked 130° 45 min  
between Coats - Van put on more  
carefully + thinner -

OK  
OK

form  
1.005 spec

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
form small

OK  
OK

OK  
Cornell Edge Blk

OK  
1.005 spec

OK  
OK

OK  
OK

Van Table paint

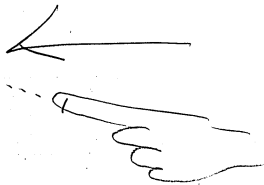
Experiment should  
be repeated  
repeatedly

75%

↓ May 3rd  
7 am-

All new ones from  
noon baked at  
130° fahs 45 minutes  
pan in oven

NOTE





16<sup>th</sup> Dup

Rule 1/4" on blank

370 lbs  
45 mm  
3 Coals

OK  
OK

Blank Cracked

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

83%

Surfaces not quite up to 1500 blind and

5

1

see if a  $\mu$  changed

17<sup>th</sup> Dup 18<sup>th</sup> Dup

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

75%

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

75%

19<sup>th</sup> Dup

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

16%

Seal  
Kearner  
Post Varnish  
+ 500mg each  
other

20<sup>th</sup> Dup

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

75%

Inputs  
21<sup>st</sup>  
Cylinder  
Revised

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

83%

22<sup>nd</sup> Lot  
Cylinder Not Revised  
not  
(un-prod)

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

50%

23 lot  
got 1st  
(not inspected)

1412  
Blank

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
Concl - Edge

OK  
OK

OK  
OK

Spec  
OK

Cracked  
Blank

OK  
OK

OK  
OK

Spec  
OK

75%

24  
Tits on  
not inspected

1510  
Blank

OK  
OK

Spec  
OK

OK  
Concl

Chung  
Edge

OK  
OK

OK  
OK

OK  
Concl

Lower  
edge

OK  
OK

OK  
OK

OK  
Concl

Spec  
edge

OK  
OK

Spec  
Spec

Spec  
Spec

75%

25  
Tits on  
not inspected

1510  
Blank

Spec  
OK

Blank  
Crack

Blank  
Crack

Spec  
OK

Blank  
Crack

Blank  
Crack

Blank  
Crack

Spec  
Spec

Spec  
OK

OK  
OK

Spec  
OK

OK  
OK

16%

1051 E

Use regular blanks not 1412 or  
1510 but old reg

Varnish 3 times & dry 1 hour  
after each -

Print 1510 schedule except  
500 lbs

probably  
didn't  
Ream  
Hole

1052 E

Dup 1051

Except change pressure to  
700 lbs 1510 schedule





3 Coat 1 hour  
Req 1510 schedule  
flush at hole

850 lbs

Press 40

OK  
OK

OK'd label - Sansam

OK  
OK

OK  
OK

Best surfaces yet  
up to May 4/1916.

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Corner at edge pulled off

Space end of music one only  
OK

Good 1  
Very good 10  
Very Very good 12.

Quality of music fine

91

OK'd Edgeline

Wake up America

1054 E

Hoffman

Make 24 1510 blanks

Only pressed 600 lbs in the  
big powder presses

Give to Moore to run thru  
siege 1510 3 Coat Van process -

130° Fahr Baked one hour

850 lbs final press was

Drop 1054 Press 40 Clean edges on only, oil on both.

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Old fallout  
Home

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Very good quality of Edgeline  
break Edgeline

Low Van Edge  
OK

Van pressed off edge cleaned  
not Edgeline Van 1510 Coat

OK  
OK  
Edge broken Too much

6/24/16

May 4<sup>th</sup> - Use 3 coats  
Inspect well -

Bake 1 hour after each  
Coat -

Remove the raise at the  
center hole.

Use 2 sets new music mould  
New - Keep 2 tracked moulds  
records each lot, Mark the  
records these 2 lots of moulds  
used on -

Around the map # 4491-C-19

Wake up America # 4620-C-61

Handily any ooze on edges  
fine outer edge - no crushed Edge

1510 Blank flush Center

700 lbs. Rubber

1<sup>st</sup> Coat all over blocks

2<sup>nd</sup> " 1/4" from edge 6 (cont)

3<sup>rd</sup> " 1/4 " "

" Around the map set

1/2" from

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

100%

50%

Space

OK

Crushed Edge ✓

Edge crushed all around 100%





6/4

Press 41

B2

OK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OK

Edge broke

down Vard

Space

form, narrow

form near label

Old folks at Home

66%

C1

OK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OK

Space small

OK

Edge broken

form

Space - stick

form

form

form

form

form

form

form

form

form

form

75%

Old folks at Home

Old folks at Home

C2

OK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKSpace not OK  
Space moved defect

form OK

Poor Varnishes

blanks -

defect print

Main -

50%

All inspected

1510-Block

Lot A Varnish of 1044 E 3 coats

Reg 1510 schedules

A Var

B Var

B Var 6544

11 Reg

OK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OK

Oil solvent

Home

3544-

B-4-56

63%

7/4

A Var

OK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OK

Space

Space

Space

Space

Space

Space

Space

Space

Space

Old folks at home

72%

OK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OK

Space

Space

Space

Space

Space

Space

Space

Space

Chip Edge

70%

2<sup>nd</sup> Deep <sup>flush at hole -</sup>  
3 cont. 1 hour Dry

OK  
Canned - at edge slight flaking of veneer on hole edge

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
1<sup>st</sup> Day 1 1/2" bare spot low var near inner hole

8 Blanks - 4 thrown on

bad vacuuming

stop dust suction

62%



30<sup>th</sup> Dup

May 4/16 - 100 hand  
3 coil  
15 10 - set 3

Wake up America -

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

100%

This is 2<sup>nd</sup> 100% with  
Wake up America -

14 men to a leg this includes the  
final press men —

64 other men on 2 shifts  
later care of all the other things

One leg does 3200 72 hours 14 men on a shift. This include big press man, includes leg foreman

WE have 6 legs -

1 leg ok for 1510 blanks -

Can run  $1\frac{1}{2}$  leg with moulds we have, any further extension must have moulds made,

Hoffman wants big special fine woven bags to store his fine powder

125 quib 150 blanks Complete daily 19200  
3 Cloats both sides - .97 Cent Blank

This totals 7.39 cents for blank ready to mount,

Print .5 Cent.	
Clean Moulds .8	8.52 c
Inspection .35	.35
	<u>8.87</u>

### Direct Print

Blank 1510 or 21000  
20 000 blanks -

645 1/2 lbs

25.8 Chuck

9.6 shells -

12000 lbs fiber	126.00
4900 " Chuck	34.00
1870 " Lac	374.00
30 gals Alcohol	19.00
130 phenol 100 lbs Resin	180.00
	\$ 683.00

3.415

Alcohol loss in powder 20%  
not included - 125 gals say  
in lost daily -  
Labor moulding 1.95 67 men  
Other labor .74

5.899 c blank

438  
6.327 - includes loss of

$$8 \overline{) \frac{80}{70}} \left( \frac{20}{40} \right)$$

$$11 \overline{) \frac{80}{73}} \left( \frac{73}{30} \right)$$

$$11 \overline{) \frac{90}{82}} \left( \frac{81}{20} \right)$$

$$11 \overline{) \frac{70}{66}} \left( \frac{63}{90} \right)$$

$$11 \overline{) \frac{80}{73}} \left( \frac{72}{20} \right)$$

$$\begin{array}{r} 0 \\ \hline 0 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ \hline \end{array}$$

- |    |   |    |
|----|---|----|
| 11 | — | 91 |
| 10 |   | 83 |
| 9  |   | 75 |
| 8  |   | 66 |
| 7  | — | 58 |
| 6  |   | 50 |
| 5  | — | 41 |
| 4  | — | 33 |
| 3  |   | 25 |
| 2  |   | 16 |
| 1  |   | 8  |

**Notebook Series -- Notebooks by Edison and Other Experimenters**  
**Disc Record Book No. 12**  
**Notebook, N-16-05-04.2**

This notebook was used by Edison in May 1916 for notes on experiments to improve the manufacture of disc records. The entries describe a sequence of experiments numbered from 1056E to 1076E. Included are tests involving different varnish compounds, variations in the number of coats and methods of applying the varnish, and differing amounts of pressure and baking schedules. Flaws and successful results are both noted, along with the title of the musical selection used in the tests. Some of the tests were performed on blanks rejected for bad varnishing in order to "show if we must be careful in varnishing." Several entries contain information on the number of presses available for the transfer and printing process; one entry indicates that not all presses acted alike and that each had to be tested. Some notes are in the form of instructions to Sherwood T. (Sam) Moore or other employees. Inserted into the book are four loose pages of notes by Edison pertaining to the reexamination in November 1916 of experiments 1058, 1063, 1065, and 1067. The front and back covers are labeled "No 12." The pages are unnumbered. Approximately 125 pages have been used.

12 — 100%  
11 — 91  
10 — 83  
9 — 75  
8 — 66  
7 — 58  
6 — 50  
5 — 41  
4 — 33  
3 — 25  
2 — 16  
1 — 8

25¢ 150  
*Home Co.,*

STATIONERS,  
36 JOHN ST.  
AND  
19 PLATT ST.  
NEW YORK.

May 4/1966







1510 lot 3  
3 suspended -  
34 Dup -

2 (OK)  
(OK)

3 (OK) Home (large part)

4 (OK) Blank (OK)

5 (OK)  
(OK)

6 (OK) Corned (small edge)

7 (OK) Fern, Rim  
(OK)

8 (OK)  
(OK)

9 (OK)  
(OK)

10 (OK) Corned Edges

11 (OK) Small base part  
(OK) Label

12 (OK) Corned Edges

11

63%

Wake up  
America

35 Dup  
12

(OK) Spaces  
(OK)

(OK)  
(OK)

(OK)  
(OK)

(OK) Edge Top  
(OK) bad formation

(OK)  
(OK)

(OK) Corned Edges

(OK) Low V spot  
(OK)

(OK)  
(OK)

(OK)  
(OK)

(OK)  
(OK)

(OK) Spaces  
(OK)

(OK) Spaces  
(OK)

(OK) Edges  
(OK)

12

66%

Old Talkout  
Home

36 Dup

(OK)  
(OK)

(OK)  
(OK)

(OK)  
(OK)

(OK)  
(OK)

(OK) Low V spot  
(OK)

(OK)  
(OK)

(OK)  
(OK)

(OK)  
(OK)

(OK) Spaces  
(OK)

(OK)  
(OK)

(OK)  
(OK)

(OK)  
(OK)

(OK)  
(OK)

12

Around the Map

37 Dup  
May 4 L

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

12  
75%

Stop, look, listen

1510 Lot 1  
38  
2 Cows 1 Horse 6 kids  
800 Ruffs

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

12  
50%

Around the Map

1510 Lot 1  
39  
800 Ruffs  
1 Horse 6 kids  
3 Cows

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

12  
16%

Around the Map

Term Term  
dirt for dirt to mound

Term Label part  
OK

Thy Spot low V  
Spaced

Spaced  
Spaced

Low Var Spat  
"

Very low Var Spat

Spaced  
OK

Spaced  
OK

Low Var  
OK

Spaced  
Spaced

Spaced  
OK

Spaced  
OK

Spaced  
OK

Spaced  
OK

Spaced  
OK



We start with 43rd Deep  
 + tag the records so we  
 can test for wear  
 of moulds —

1510 Lot 1  
 43<sup>rd</sup> Deep <sup>Good Luck</sup>  
 3 out 1 hour

OK  
 OK

OK  
 OK

Specs  
 OK

OK  
 OK

OK  
 OK

OK  
 OK

Term at Edge  
 OK

OK  
 OK

OK  
 OK

OK  
 OK

OK  
 OK

OK  
 OK

12  
 83%  
 Lu Lu

1510 Lot 1  
 44<sup>th</sup> Deep <sup>Good Luck</sup>  
 3 out

OK  
 OK

OK  
 OK

OK  
 Corned Edge broken

Low Van Spot

OK  
 OK

OK  
 OK

OK  
 OK

Corned broken edge

OK  
 OK

OK  
 OK

Low Van out  
 Low Van in

OK  
 OK

OK  
 OK

12  
 75%  
 Lu Lu

1510 Lot 1 <sup>Good Luck</sup>  
 3 out 1 hour

45<sup>th</sup> Deep

Corned  
 OK Edge

Specs  
 Low Van

OK  
 OK

Specs  
 Spec

Specs  
 OK

OK  
 OK

Specs  
 OK

OK  
 OK

Specs  
 OK

Low Van  
 Spec

OK  
 OK

OK  
 Corned Edge broken

12  
 50  
 Westinghouse  
 America

1510 Lot 1  
300 Pallets  
3-1 hour  
46<sup>th</sup> Dup

- 2 █ Spaces  
OK
- 3 █ Spaces  
OK
- 4 █ Spaces  
OK
- 5 █ Spaces  
OK
- 6 █ Low Van Edge  
OK
- 7 █ Low Van Edge  
OK
- 8 █ Low Van Edge  
OK
- 9 █ Spaces  
OK
- 10 █ Ferno  
OK
- 11 █ Spaces  
OK
- 12 █ Spaces  
OK

25%

Stop, look, listen

1510 Lot  
47<sup>th</sup> Dup

- 2 █ OK
- 3 █ Ferno  
OK
- 4 █ Ferno  
OK
- 5 █ Conf  
OK
- 6 █ Low Van 2<sup>nd</sup>  
OK
- 7 █ Low Van  
OK
- 8 █ Ferno  
OK
- 9 █ Ferno  
OK
- 10 █ Ferno  
OK
- 11 █ Ferno  
OK
- 12 █ Ferno  
OK

36%

Stop, look, listen

1510 Lot 3  
700 Pallets  
48<sup>th</sup> Dup

- 2 █ OK
- 3 █ OK
- 4 █ OK
- 5 █ OK
- 6 █ Conf  
OK
- 7 █ Low Van  
OK
- 8 █ Conf  
OK
- 9 █ OK
- 10 █ OK
- 11 █ OK
- 12 █ OK

91%

Around the Map

49-<sup>11</sup> Lot 3  
Top 20  
Rabbit

50- 1510 Lot 3

51 1510 Lot 3

2 low Van  
Edge chipOK  
OKSpecs  
Specs | op3 Specs  
SpecsConced  
OKVeneer pulled  
off int EdgeSpecs  
Specs | op4 Specs  
SpecsOK  
OKOK  
Conced Edge broken5 Specs  
Hrms int opOK  
OKSpecs  
OK only 1 1/2  
vts6 OK  
OKOK  
OKConced  
OK Edge broken7 OK  
OKOK  
OKConced  
OK Veneer pulled off  
Edge8 Big low Van spot  
broken int EdgeOK  
OKOK  
OK9 OK  
OKOK  
OKSpecs  
Specs | op10 OK  
OKOK  
OKConced  
OK Veneer corner Edge11 OK  
Conced Edge 6 inOK  
OKSpecs  
Specs int op12 Specs  
Specs | opOK  
OKOK  
OK

11 Records

OK  
OKConced  
OK broken EdgeStep look lister  
45%

100%

Wake up America

58%  
Step look lister





# NOTE

NOTE

E 1055

Hereafter Resame on Labels  
Heat hot stick to mould  
before used Resame

3 coats on our old Reg production  
blank - 87.5% good

But the surfaces  
are horrible.

Surfaces show mottles but not  
so much as on Reg transfer  
& yet surface is far worse

Nothing in 4 Coats the Veneer  
is so little thickened it does no  
good, 3 Coats is better or at  
least as good

Press 41 lot 3  
55 Seams on  
Labels  
1570-

OK  
OK

OK  
OK

OK  
OK

Spaco  
Spaco not op

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Form  
Form op - Edge

OK  
OK

OK  
OK

OK  
OK

66%  
Labels perfect,  
Wake up America

56- Lot 3 1570  
40 Resame  
2 Labels  
1 hr

OK  
OK

OK  
OK

OK  
OK

Spaco  
OK  
Low V. form

Spaco  
shacco op

OK  
OK

OK  
OK

Concl  
OK

OK  
OK

OK  
OK

Spaco  
OK

Concl  
OK

OK  
OK

66%  
Around the Map

57- 4 Coats  
# 41- 1570 lot 3.

Spaco  
OK

OK  
OK

Form  
OK

OK  
OK

Form  
OK

OK  
OK

Spaco  
OK

OK  
OK

OK  
OK

OK  
OK

Spaco  
OK

OK  
OK

OK  
OK

58%  
Around the Map

Surfaces very but not as  
good as 1570E 600 lbs in H. Hoffman  
found primer

4 May 1916 —

1054 E

1519 Hoffmann  
method

Best as far for surface &  
quality & 91% Efficient

The only change is Hoffmann  
reducing his pressure from  
1000 down to 600 —

This gives more porosity for 1st  
Coat of Varnish — also blank  
gives more without squeezing edges  
& we get better fills —

~~1054~~

1510 Lot 3  
 58 Dup 3 Conts.  
 Press 41

OK  
 OK

OK  
 OK

Spots  
 OK Edlich 1mm

OK  
 OK

Spady stick M  
 OK

OK  
 OK

OK  
 OK

Spac stick M  
 OK

OK  
 OK

Fern  
 OK

OK  
 OK

OK  
 OK

66%

Around the Map

1510 Lot 3 - 1510  
 59 4 Conts  
 # pieces 40 -

-Vases Edge off  
 OK

Count 2 edge broken  
 OK

Count Vases edge  
 pieces off  
 OK

Count 2 edge broken  
 OK

OK  
 OK

Spacs  
 OK

Spacs  
 OK

OK  
 OK

Edge broken band  
 OK

OK  
 OK

Count Vases off edge  
 OK

OK  
 OK

Edge band  
 OK

58%

Around the Map

1510 Lot 3  
 60 Dup 3 Conts  
 Press 40

Spacs  
 Spacs up

Spacs  
 OK

Count Vases off edge  
 pieces  
 OK

Spacs  
 Spacs not off

Spacs  
 Spacs off

Spacs  
 Spacs not off

OK  
 OK

OK  
 OK

OK  
 OK

Disused Edge band  
 OK

Low Vase Spat.  
 "

More any low  
 Spat in Model

41%



64 42 spec  
Repeated Van  
Blanks

- Specs OK
- OK OK
- Blank Cracked
- OK OK
- OK OK
- Crack Edge Blk
- OK OK
- Spot Turn / not op
- Crack Edge Blk
- Specs OK
- OK OK
- OK OK

66%

Old folks at Home Stop, footy Listen

65 spec 42  
Repeated Van blanks

- Specs OK
- Specs OK
- OK OK
- OK Low Problem Edge
- Turn OK
- OK OK
- Specs OK
- OK OK
- OK Low / repeated Edge
- Turn OK
- Turn OK
- Blank spot Specs

71%

66 spec 40  
Repeated Van blanks

- OK OK
- OK OK
- OK OK
- Specs OK
- OK Low / repeated Edge
- Specs Turn / op
- OK Low / Cracked Edge
- OK Low / Cracked Edge
- Specs Specs / op
- OK OK
- OK Low / repeated Edge / blank
- OK OK

75%

Wake up American

Think Mistake here, Moore said  
only 5 Rounds, of here are 7  
marked & reported -

The suspicious last 2 are  
good

69	41%
70	66
71	100
72	58
73	66
74	66
75	83
76	83
77	58
78	66
79	33
80	83
81	75

41.9 av

67.5-

this is 1510  
1000 lbs  
pressure

NOTE

13 Rounds of 1510, old 1000  
lbs on big press with lot 4  
powder average 67.5%

1900 2073

67- Press 41  
on the label  
Rejected Van Etten

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Space  
OK

91%  
Lu Pu

Repeated Blanks  
Press 41  
68

OK  
OK

OK  
OK

OK  
OK

Space  
OK

Space  
OK

Space  
OK

Big transparent  
OK

OK  
OK

OK  
OK

Space  
OK

Big bare  
space

50%  
Waste up stream

1510 of 4 Press 42  
600 lbs  
600 lbs  
Impacted Clusker  
69-

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

41%  
Around the Map

70 Dup 1510 lot 4  
Press 41 3 cuts 1 hr  
Unspooled Var B

OK  
OK

Space  
OK  
Big form, label  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Space  
OK  
OK  
OK

Space 010

OK  
OK

OK  
OK

OK  
OK

66%

Old falls at Home

71 Dup 1510 lot 4  
Press 41 - out on label  
Unspooled Var B blank

OK  
OK

OK  
OK  
Cord Created Edge

OK  
OK

OK  
OK

OK  
OK  
Cord Edge crushed

OK  
OK

OK  
OK

OK  
OK

Space  
OK  
OK  
Big transport label

OK  
OK

OK  
OK

OK  
OK

100%

Old falls at Home

72 1510 lot 4  
Press 42  
Unspooled blank

OK  
OK  
Cord

OK  
OK

OK  
OK  
Cord removed Edge label

OK  
OK  
Cord

OK  
OK  
Edge crushed

Form  
OK  
OK

OK  
OK

OK  
OK  
Broken Edge

OK  
OK

OK  
OK

Space  
OK  
OK

OK  
OK  
Broken Edge

58%

Arrows like Map

Underneath the silos  
4490 C 53

Round the map  
4491 C 57

are taken off - low spot

Wake up America  
4620-C-40

Millikin Band  
4497-C-39

also taken off low spots

73 Dup 1510 lot #  
Press 40  
Suspected blank

Spec OK

OK  
OK

OK  
OK

Broken Edge

OK

OK  
OK

Broken Edge

OK

OK  
OK

OK  
OK

OK  
OK

Spec OK

OK

OK  
OK

OK  
OK

66%

Wake up America

74 Dup 1510 lot #  
Press 41  
Suspected Var

OK  
OK

OK  
OK

OK  
OK

Edge broken

OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Spec OK

OK

OK  
OK

OK

66%

Old folks Home

75 Dup 1510 lot #  
Suspected Var  
Press 41

Spec OK

OK  
OK

OK  
OK

OK  
OK

Spec OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Spec OK

OK

OK  
OK

83%

Around Map



1510 left #  
76 Dup  
Inspected Vial  
Press 40

OK  
OK

Label pull out

"  
Veneer of label Ed

OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
Cond

Edge broken

83%

Wake up America

1510 left #  
77 Dup  
Press 40  
Inspected Vial

OK  
OK

OK  
OK

Spears

OK

Spears

OK

OK  
Cond

Edge broken

Term

OK

Spears

OK

OK  
OK

Term

OK

OK  
Cond

Veneer flake

OK  
OK

OK  
OK

OK  
OK

OK  
OK

58%

Stop look listen

1510 left #  
78 Dup  
Press 40  
Inspected

OK  
Cond

Edge broken

OK  
OK

OK  
Cond

Edge broken

OK  
OK

OK  
OK

OK  
OK

Spears

OK

Spears

OK

Disrupt near label

OK

OK  
Discard

Edge broken

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
Cond

Edge broken

66%

Around the Map



# NOTE

1510 Lat 4

Lo Reg 1510 - pressed at  
1000 lbs at 700 Rubber

This is up to

81 Dup -

82 Dup is 1519 -

which is 1510 pressed in big  
press with 600 lbs  
pressure instead of  
1000 - dat 1 - is number  
of the powder lat.

82 - 1519 Lat 1  
Press 40

OK  
OK  
Edge OK

OK  
OK

OK  
OK

OK  
OK

↓ Pullouts  
OK

OK  
OK

OK  
OK

↓ Specs 2 pieces  
OK

OK  
OK

↓ Specs  
OK

OK  
OK  
Veneer OK

OK  
OK

75%

Stop look hating

1519 Lat 1  
~~83 Dup~~

1519 Lat 1  
~~84 Dup~~

1056 E Press #1 1519 Lot 1 Blank

3 Coats, 1 hour Bake  
 1st Run 2nd Run 3rd Run  
 Press #1 Press #1 Press #1

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Wake up America

mod  
 spec  
 mach  
 defect

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Wake up America

Exp. of  
 to vertex off

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
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OK

OK  
OK

Wake up America

to edge off  $\frac{1}{2}$

100%

100%

100%

1056 E

1519 Hoffman Bay press  
 62 lbs for 1000 press

Print 3 lots of 1519 Lot 1  
 blanks altering the schedule  
 Only for these 3 Rounds  
 (some extra rounds of 1056 E blank made)  
 Schedule - Bring to contact  
 needle off pin. When temp  
 reaches 200 deg Fahr  
 put the pressure to 850  
 for 12 minutes Cool down  
 Cold - **NOTE** ✓

200° Apparently reduces the Edge  
 breaks down from 1.7 per round  
 to 1 per round & very small

Also - possibly Cooks out varnish &  
 air mbos so spec diminish -  
 & certainly prevents varnish cooking  
 out so much on Edges.



1056E  
Press 41  
1519 Lot 2  
oil knives

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

100%

Wake up America

1056E  
Press 41  
1519. Serials 5<sup>th</sup>

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

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OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

91%

Old Folk at Home

1056  
Press 42  
1519 Lot 1

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

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OK  
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OK  
OK

OK  
OK

OK  
OK

OK  
OK

100%

Wake up America

We have 34 Transfer Presses  
and 42 Printing presses.







98 Round Press 40  
1510 - 180° sch

OK  
OK

Specimen  
OK

OK Broken Edge

OK Broken Edge

OK  
OK

OK  
OK

Firm  
OK

OK  
OK

Firm  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

50%

Old Talk at Home

1519 - lot 2

press 42  
512. sch. - may 5 -

99 Round  
OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

100%

Stop Look Listen

Reprint 1057

Press 41

1 Ferns pull off fibers coat  
Ferns

2 Pulls off ferns  
pulls off 1"

OK  
OK

3 Pulls off 2 spacs  
OK

OK  
OK

4 Spacs } pulled off

OK  
OK

5 Ferns (out of) pulled off 12 cent

6 Ferns pulled off 12 cent  
OK

OK  
OK

OK  
OK

7 Ferns - pulls off 1" layer  
OK

41%

Around the Map

Either pull off  
or its too trapped  
as you can see 1st  
layer

The ferns are  
cracked all along  
edge except a little  
+ the unpainted part  
Turned up and  
if powerful  
gas pressure

1057 E

Reprint

Jake 24 of the 1519 100% Prints

Put 3 coats Van 1019 E on

baking 1 hour after each coat

Reprint Standard Schedule  
200° Dtg

press 50

1057

1 Low var  
OK

OK  
OK

2 Low var  
OK

OK  
OK

OK  
OK

3 Spac  
OK

4 Spacs / op

5 Spacs  
OK

OK  
OK

6 Spacs  
OK

OK  
OK

7 Ferns  
OK

41%

Around the Map

This experiment shows 200° Temp  
Standard schedule prevents  
almost wholly broken edges

But the 1519 blank with 400  
less lbs pressure in Hoffmann  
press makes most of the  
good yields.

100 Run Press 41	101 Run Standard Press 42	102 Run Sch 200° Fall Press 41
OK OK	OK OK	Specs OK
Specs Specs	oil 6-2	OK OK
OK OK	low var OK	OK OK
OK OK	OK OK	OK OK
OK OK	OK OK	OK OK
Stick Specs OK	OK OK	Com OK
Specs Specs	OK OK	to Edge brot
OK OK	OK OK	OK OK
OK OK	OK OK	OK OK
Spec OK	Specs Specs	OK OK
OK OK	OK OK	OK OK
OK OK	OK OK	OK OK
		Specs OK
66%	75%	83%

Around the Map

Old folks at Home Around the Map

103 Round oil box  
1519 blank  
Standard Sch Map  
Process 42

OK  
OK

pull out  
OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

83%

Wakes up America Old folk Home

104  
1519-Std Sch  
Process 41

Speed OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

91%

105  
1519-Std Sch  
42 process

Vancey  
OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

83%

Around Map

Low Vard Spout No.  
+ Vancey

Show 107 to Moore  
Oed on Munsie -

106 Lot 1  
1519 51nd sch  
Prize 41 -

OK  
OK

Low Var

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Low Var

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

83%

Arround Meep

107 Lot 1  
1519 51nd sch  
Prize 42

OK  
OK

OK - Oul Spat  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

11

100%

Stop look Listen

108 Lot 1  
1519 51nd Sch Mays  
Prize 41

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

100%

Wake up America

109 Lot 1  
1519 Stnd Sch  
Pices 42

OK  
OK

OK  
OK

OK  
OK

Com OK to x 1/4 Edge 13

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Com OK Edge bk 1 1/2 long

100% around Map

110  
1519 Stnd Sch  
Pices 41

Com OK Veneer

OK  
OK

Com OK to C Edge

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Com OK to x 1/4 Edge 16 in

OK  
OK

100%

Around the Map

111 Lot 1  
1519 Stnd Sch  
Pices 40

Discard Veneer  
OK

OK  
OK

Com OK Edge V

Com Veneer

OK  
OK

OK  
OK

OK  
OK

Com Veneer

Discard Edge 16 in

OK  
OK

OK  
OK

Com Veneer

83%

Old Folks at Home

1519 to here  
200' Stnd Sch - Average  
21 Rounds

95%

This shows we dont want thin  
Veneer at Edges -

Perhaps wants thicker in about  
1/4 or 1/8 inch -

112 Special test 1510. 6/30 schedule 150

Thin Veneer at Edge

112 Row 411 40 pins

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

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OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

91%

Wake up America

Veneer flaked off  
OK

OK  
OK

Com OK Veneer

Com OK Edge

OK  
OK

Veneer flaked  
OK

Com OK Veneer

Com OK Edge breaks

Com OK Veneer off

Skate stuck material  
OK

OK  
OK

OK  
OK

75%

Old folk Home

114 114 Row

114

Row 41

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

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OK

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OK  
OK

91%

Stop work, listen

Com OK V Edge







119 Lot 1  
1519 Stid Sch  
pines 41 -

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Com  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

v Edge

11

100%

Around the Map Wake up America

120 Lot 1  
1519 Stid Sch  
pines 40.

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Com  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Com  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

v - Edge

Edge, small

Edge small

100%

Wake up America

121  
1519 Lot 1 Stid Sch map  
42 pines

Discard - Venice  
OK

Binwood, Edge  
OK

OK  
OK

OK  
OK

OK  
OK

Low Var  
OK

OK  
OK

OK  
OK

OK  
OK

Discard - Venice  
OK

OK  
OK

Com  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

v edge

66%

Stop Leaf, listen



125 1519  
Old 5c  
Pace 40

OK  
OK

OK  
OK

Comm  
OK

Edge

Comm  
OK

Edge

OK  
OK

Comm  
OK

Veneer

Discond Edge  
OK

OK  
OK

OK  
OK

OK  
OK

Comm  
OK

Edge

OK  
OK

91%

Around the Map

126 1519  
Old 5c  
Pace 40

OK  
OK

OK  
OK

OK  
OK

Comm  
OK

OK  
OK

Discond Veneer

OK  
OK

OK  
OK

Comm  
OK

OK  
OK

OK  
OK

OK  
OK

91%

Old folded frame

127 1519  
Old 5c  
Pace 40

OK  
OK

OK  
OK

OK  
OK

Comm  
OK

OK  
OK

OK  
OK

Comm  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

83

Around the Map



131 1519 <sup>Lot 2</sup> STD S

Process 40

Specimen not ok  
 Com Edge Exp  
 Com Edge by  
 Low Vars - Carbon  
 ok  
 ok  
 ok  
 ok  
 ok  
 ok

DISCARD Edge

ok  
 ok  
 ok  
 ok  
 Com Vanced  
 Com Edge †  
 ok  
 ok  
 ok

75%

Waste rep American

132 1519 <sup>Lot 2</sup> STD S

Process 41

no items

ok  
 ok  
 ok  
 ok  
 Com Edge †  
 ok  
 ok  
 ok  
 ok  
 ok

100%

Waste rep American

133 1519 <sup>Lot 2</sup> STD S

Process 41

ok  
 ok  
 ok  
 ok  
 ok  
 ok  
 ok  
 Com Edge 3/4 long  
 ok  
 ok  
 ok  
 ok  
 ok  
 ok  
 ok  
 ok  
 ok

100%

Waste rep American

Lot 2  
134 1519 55  
Process 40

OK  
OK

OK  
OK

OK  
OK

OK  
OK

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OK

OK  
OK

83%

Old folk at home

Lot 2  
135 1519 57.5  
Process 40

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

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OK

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OK

OK  
OK

OK  
OK

83

Stop, look & listen

Lot 2  
136 1519 57.5  
Process 42

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

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OK

OK  
OK

OK  
OK

OK  
OK

100%

Old folk at home

Always show basal

March 8th 1916

30 known runs for us of  
"Wake up America"

Shows surfaces delineated  
only a little -

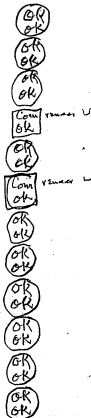
There are many dips in this  
lot some are V others V  
nearly V + one low - This  
looks as if moved originally  
differed in surface

Rough

good — 1  
nearly V — W W W W W  
V W W W W  
V V W W

Should be better.

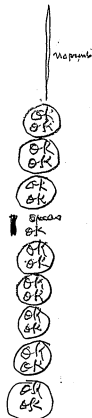
137 1519 Lot  
3th Sc  
page 40



100%

Wake up America

138 1519 Lot 1  
3rd Sch  
page 42



88.8%

Old folks at home

139 1519 Lot  
3rd Sch



140 Round load of Bran New Moulds <sup>all done</sup>  
 Marked Load # 2 15 19 <sup>lot 2</sup> Sino 5c  
 Press 41

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Com  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Surfaces not passed —  
 Surfaces not good just pass HHHH  
 Surfaces fairly good WHI  
 " Very good WHI  
 " Very Very good —

Rim Sets in Moulds  
 or fat 2 per cent  
 Coarser —

Have  
 Put on time tests  
 May 8th 1916

100

Here comes Tobie

Note new load models  
#3

May 8 1916

141 Set

To found to pass 1  
Unusually best pass 1M 1M  
fairly good 1M 1M  
Very good 1M 11

Fracked blank V but has a #5 Row

All in this book  
3 bottles 3 coats

141-1519 Lot 3  
31.5 Sa  
Press 40  
New load models  
no 3

142-1519 Stasch  
Lot 3  
Press 4 Load 2

143-1519 Lot 2  
Std Sch  
Press 42 Load #2

Discard 005  
OK  
OK

OK  
OK

OK  
OK

OK  
OK

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Discard Veneer  
OK

Discard Vedge  
OK

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OK

OK  
OK

OK  
OK

91 2/3

Wild Bush Rose

58 1/3

Jacob's

91%

Tootsie

144-1519 lot 2  
Std Sch  
Press 42 Load 3

OK  
OK

Form near edge

OK

Form near edge

OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Form edge corner

OK  
OK

OK  
OK

75%

Wild Irish Rose

145 1519 lot 4  
Std Sch  
Press 41  
Load 3

OK  
OK

OK  
OK

OK  
OK

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OK

OK  
OK

OK  
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OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

100%

Wild Irish Rose

146 1519 lot 4  
Std Sch  
Load 2  
Press 42

OK  
OK

Form venice-

OK

OK

OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Form at edge of mass

OK  
OK

Form edge corner

OK  
OK

OK  
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OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK



15Q 1519 lot  
lots 2 Std Sc  
Press 41

3 no Runs

OK  
OK

OK  
OK

OK  
OK

Com  
OK

Zelap 16 1/2

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

100%

Wild Fresh Press

151-1519 lot 4  
lots 2 Std Sc  
Press 40

3 no Runs

OK  
OK

Com  
OK

Com  
OK

Vener ✓

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

100%

Tactia

152-1519 lot  
lots 2 Std Sc  
Press 41

OK  
OK

OK  
OK

Com  
OK

OK

OK

OK  
OK

Com  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

88%

Tactia



1059E

Duplicate Reg 1519.

But change <sup>standard</sup> Schedule

by holding it at 850 lbs  
for 8 minutes.

1060 E

Deep Req 1519 #

156

But change standard  
schedule by holding it  
at 850 lbs for 6 minutes

OK  
OK

Label pulled out

OK

OK  
OK

Long blank space

OK

OK  
OK

Specs look like oil

OK

OK

OK

OK  
OK

Discard 24 gms  
alluminum OK

OK  
OK

OK  
OK

OK  
OK

58%

looks as if 6 min  
not enough to  
Condense properly



156 1519 lot  
load 3  
Press 42

OK  
OK

OK  
OK

OK  
OK

Com Edge ✓

OK  
OK

Com Edge ✓

Spec 040

OK  
OK

Com Veneer

DISCARD Edge

OK  
OK

OK  
OK

83%

Wild Bush Road

157 1519 lot  
load  
Press

Com Veneer 70

OK  
OK

OK  
OK

OK  
OK

Spec Spec 100

OK  
OK

Spec OK

Com Veneer

OK  
OK

OK  
OK

Com Edge

Spec OK

75%

Justini

158 1519 lot  
load 3  
press 41

OK  
OK

OK  
OK

OK  
OK

Spec - stain of veneer

OK  
OK

OK  
OK

OK  
OK

Spec in veneer look OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

83%

Bush Press

1061 E Lead 3  
Press 42  
1st Round 191

Term  
OK

OK  
OK

Discard  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Discard Edge  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Crush Rose

75%

Press 41  
2nd Round 2 160

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

83%

Leather

space op Cracked just  
like 1063 that has  
good surface  
produced 2 hours  
went Reddy  
will not drain

a circle maybe more  
OK

Surface not  
quite so good  
to 1063  
Waits 2 hours  
between  
Each Coat

1061 E

Dep regular 1519

Put last coat of Varnish is to  
be baked two hours

Make 4 Rounds of this -

3rd Round Press 42 161

4th Round Press 41

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Com Edge

millstone

100%

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Com Edge Tool is  
OK

NOTE

Good Edges



Here is a rough test for surface

200° D <sub>2</sub> g	190° D <sub>2</sub> g	Reg
Don't pass 1	2	2
Just pass —	1	3
Good 4	3	5
✓ V 8	5	5
VV —	1	—
<hr/> 13	<hr/> 12	<hr/> 15

As I remarked before 200 day moulds may have better surface -

Tracked blanks on 200 + 190 act about same only V + 2 have run out in moulds -

I think if they were new moulds they might show VV

Surfaces can only be improved by making smoother moulds especially of finer powder. The latter most important.  
 Or Drop 1 fibre + subulate  
 1 Chalk making it 4 fibres  
 3 Chalk + asclepias  
 See by Experiment probably  
 3/4 or 1 -

May 8 1916 -

So far Standard Loh + 600 pressure 1519 blank has better surface than our old Reg

But when 1519 is pressed only at 400 lbs. The surfaces are not so good as a 600 sec. There seems RO - 13 blank pressed out at edge may be the reason

See 1058 for record -

Also There is little difference between 180° + 200° with

1519 + old Loh either in surface or % of good, but think 200° is the standard schedule is best. Note high % good of 180° 1062 E 200's are 24% possibly

Up to here Press 41 averaged 86.4%  
 42 83%  
 40 77.3%

1063

1st Round  
Pills 142Note the phenomenon  
of large area area

2nd Round

press 41

164

Spices - 2  
OKOK  
OKCom. veneer is  
OKOK  
OKTern  
OKSpices - many large area  
OKOK  
OKVeneer &  
Spot to get out  
at fringe  
marginOK  
OKOK  
OKOK  
OKDiscard Edge  
OK

58%

Wild bush Rose

OK  
OKDiscard - Edge V  
OKPump print space large area  
OKOK  
OKPump print space large area  
OKPump print space  
OKOK  
OKOK  
OK

Com. veneer is note

OK  
OKSpices over large area  
noteCom. veneer  
OK

55%

Toolcase

1063 E

## PHENOMENON

← Best surfaces yet  
Dup req 1519 <sup>may 8</sup> 1916  
Standard Schedule Except  
Why

When temp reaches

225° Fahr put on 850 lbs  
pressure for 12 minutesPrint 2 Rounds with  
same set of moulds.

See further along 1067 - baked 140°

Better than 1063! Surfaces are  
think - Vapour both cases probablyThis high temp makes best  
surfaces yet only reason  
I can give is that Vapour goes  
Rubbery before high  
pressure comes on  
190° OVER →

All wrong - defects due to sticking  
to moulds.

Under micro I find bridge  
wall cracked also in  
places grooves cracked

The explanation is that  
the Var at 225° get hardened  
+ its not then extensible  
to any great extra on  
the draw which the  
second makes it wont stand  
it or cracks



found same thing in blank  
baked 2 hours after 3rd  
coat,

Possibly Condenses in Contact  
in 1063 + Var next blank not  
rubbery, hence thin film  
of rubbery dirt permit it  
to draw as the unhardened  
Var acts hydraulically to  
crack the thin condensed film

10 to 15 coats  
1. having alloy blank  
2. having 2. 100%  
140° dry to contact

## 1064 E REPRINT

12 Records ground off by  
steel wool + 1 chunk pumice  
using water - lay down's  
up stairs forward

Print Reg 1519 standard  
Schedule

Var 3 times, bake 1 hour  
after each = Export NG

1 - Excess at last  
ok  
2 - Space between  
ok  
3 - Space  
4 - Space  
5 - Space big  
6 - Space big  
7 - Space big  
8 - Space big  
9 - Space big  
10 - Space big  
11 - Space big  
12 - Space big

1 - Space 0.00 x 1/4"  
ok  
2 - Big spot  
3 - Space big  
4 - Space big  
5 - Space big  
6 - Space big  
7 - Space big  
8 - Space big  
9 - Space big  
10 - Space big  
11 - Space big  
12 - Space big

169  
No porosity  
or its' walls  
in Blank  
showed flaws  
(see 3 in)

Later = only record  
scraped off recheck still  
on - not soaked to blank

Possibly should have been dried  
= 30 sec the next lot,

Reprint













1069 E

Hoffman

Make a quart or so  
of weld var like 1019,  
but use 7:9 6/4 and  
4 parts, with Reg Sandmac  
+ 5% Lampblack

Think this will have  
more draws at 2250





189 Round Lot 6  
1519 SPD 30

Press 42

OK  
OK

Spec OK

OK  
OK

OK  
OK

Spec space op

Spec space mat off

Spec space op

Spec space op

Spec space op

OK  
OK

Spec OK

OK  
OK

Spec OK

OK  
OK

Spec OK

OK

41%

Jootair

1519 Lot 6 190  
STL Sch

Press 42

OK  
OK

Spec OK 03 mm

OK  
OK

OK  
OK

OK  
OK

Spec space op

Spec space mat mm

OK

OK  
OK

OK Wooding

OK  
OK

Spec OK

OK  
OK

Spec OK

OK

66%

Jootair

191 Round Lot 6  
5th Sol

Press 42

OK  
OK

OK Spec in  
Tractor's house

Spec OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Spec OK

Spec OK 063-pullman

OK  
OK

OK  
OK

Spec OK

OK  
OK

83%

Jootair

Req 1519 from Round 95 to 191

Defects in faces

Spice	65	Most of discards
Vinyl	57	were for space
Edges	68	Only a few of
low Varnish	12	these are rejected
Pull outs	9	but were Council
of terns	21	except Spice
oil	10	low Vag, terns &
poor prints	3	pull outs

1067- 1519 3 Coats Baked  
1 hour 140° + probably Condensed

Has surfaces

	1067	Req
Just Pass	0	4
good	6	7
fine	6	7
Very fine	6	2
Very Very fine	2	0
Tracked	VV VV <sup>po</sup> <sup>po</sup>	V V <sup>po</sup> <sup>po</sup> <sup>po</sup> <sup>po</sup>

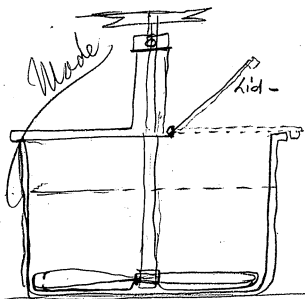
As compared with same blanks  
baked at 130° + not condensed

Note that when press was 225°  
before final pressure we got good  
surfaces like 1067



10th May 1916 —

Moors I think we have  
have a varnishing pot thus



Keep lampblack in suspension  
& prevent Evaporation

41 Press been acting very bad  
had stop using - feet same  
man on 40 -

Man today said they put a  
new gauge on 41 today

192nd Round Ray  
1519 Lot 8 Rysich  
3 cent 11.100  
Press 42

OK  
OK

Dist in M  
due to Loss  
Brush

OK  
OK

rimen it

Com  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

91%

Tootsie

193rd Round Ray  
1519 Lot 8  
Std Sch  
Press 40

OK  
OK

Com Edge to

OK  
OK

Low Varnish  
Spot

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

83%

Brush Room

194th Round Ray  
1519 Lot 8  
Std Sch  
Press 42 Std Sch

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

83%

Tootsie

1071 E

Varnish 48 Blanks with  
1019 var which contains 3% of Para  
Bake One hour at 140° using  
inspected blanks —

Have them printed by same man  
on same press, Use No 2 + 3  
group of moulds,

In putting on Varnish use  
Rotating Mixing Cup with lid  
which should be opened + closed  
each time brush is put in

Regular standard schedule to  
be used

Blanks from Hoffman should  
be inspected so have no rough  
surfaces due to sticking to his  
moulds —





201 Round 1519 hot 9

Press 41-

OK  
OK

Space blank  
OK

Com Vencer  $\frac{1}{2}$   
OK

Com Edge  $\frac{1}{2}$   
OK

Recurd. Vencer  
OK Well Edge + face  
face if OK

Space  
OK

Space | op  
OK

OK  
OK

OK low V = Mould

OK  
OK

OK  
OK

Form  
OK

Com Vencer  $\frac{1}{2}$   
OK

50%

Irish Rose

202 Round 1519 hot 9

Press 41-

Space  
OK

Space  
OK

OK  
OK

OK  
OK

OK  
OK

Com Vencer  $\frac{1}{2}$   
OK

OK  
OK

Com Edge  $\frac{1}{2}$   
OK

OK  
OK

OK  
OK

Space  
Space | op

OK  
OK

75%

Irish Rose

203 1519 hot 9

Press 42

OK  
OK

Space  
OK

OK  
OK

OK  
OK

OK  
OK

Space  
Space | op

OK  
OK

Space  
OK

Space  
OK

OK  
OK

OK  
OK

58%

1071 - Press 42r

Terms

Big Gans Spot  $3/4 \times 1 3/4$

Terms big

Big Spot 1" dia

Terms large

Specs

Low Spot

Specs

Low Spot 1" op

Specs

Spot  $3/4$  op

Specs

Specs Term op small

Specs Term op

Specs 1" Scattered } op

Specs 060

OK

OK - Edge

Specs

OK

OK

Ink Rose

1071 E

1519 Prints

12 Prints Veneer ground off by  
Luhri-

Varnish Req 3 Coats 6 hrs

1 hour after each coat

+ print req 1519 schedule  
surfaces a little rough from  
use of Coarse emery paper

1 face has 2 depressions near  
label

This is worse than Van records  
themselves probably because the  
002 or 003 Condensate helps print -  
+ the new Varnish add  
003 more making 006

204 1519 lot 9  
Stal Sch

pieces 42

Space

OK

OK

OK

OK

Space at Edge

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

83%

Jostair

205-1519 lot 9

pieces 40

Space

OK

Space

Space not cop

OK

OK

OK

Space

OK

OK

OK

OK

OK

OK

OK

OK

50%

Brush Rose

206-1519 lot 9

pieces 42

Space at Edge

OK

OK

OK

Space

OK

OK

Space

OK

OK

OK

OK

OK

OK

OK

OK

58%

Jostair

Cracked blank  
x

Cracked blank  
x

Cracked blank  
x

Cracked blank  
x

Cracked blank  
x

Cracked blank  
x

Cracked blank  
x



207-1915 Lot 9  
Std 5

Press 42

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Space  
OK 91%

Jackets

208-1915 Lot 9

Press 40

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

Space  
OK 58%

Truck Rows

209-1915 Lot 9

Press 40

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

25%

Truck Rows

Bottom Varnishing  
No Inspection

Space

Space

Space

Space

Space

Space

Space

Space

Space

Space

Space

Space

Space

Space

Space

Space

Space

210-1519 lot 9

42 Press

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

Specs 2 of 020

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

91%

Jootsai

211-1519 lot 9

Siltsch

Press 42

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

Specs int edge

OK

Spot

OK

Low mould!

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

Com Edge V

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

83%

Jootsai  
7<sup>th</sup> in low

212 1519 lot 9

Silts

Press 40

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

Specs to dip down

OK

Spec 020

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

Specs spec / op

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

Spec 030

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

Com Remer V

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

OK

58%

Brush Rose

213 1519 lot 9

42 Pinos

OK  
OK

OK  
OK

Edge V

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

100%

Jatoic

214-1519 lot 9

40 Pinos.

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

75%

Brush Rose

215 1519 lot 9

40 Pinos.

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

66%

Jatoic



1072-

1st Round  
press 40  
Spot line  
OK  
OKOK  
OKOK  
OKOK  
OKSpace mid/l  
OKSpace top edge  
OKOK  
OKOK  
OKSpot at hole  
OKOK  
OKOK  
OKOK  
OKOK  
OK

66%

Jostare

2nd Round

OK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKSpace 23/4  
OKSpace near hole  
OKOK  
OKOK  
OKOK  
OKCom/Venue  
OK

83%

Jostare

3rd Round

OK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKLow spot at  
OKOK  
OKOK  
OKSpace mid  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OK

58%

Lush Rose

4th Round

Space - stand  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OK

88%

Lush Rose

1072 E

Print 4 Rounds of 1519  
but final pressure 2 to  
62 950 lbs instead of  
the Regular 850 lbs —

The extra pressure does  
not stop trouble?

219 1519 lot 9

press 40.

OK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK middle mm  
OKOK horn about frame  
OKOK spot 3/4 near top  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OK

75%

Yortic

220 1519 lot

press 40

OK Venner  
OK VennerOK  
OKOK  
OKOK  
OKOK  
OKOK square  no print  
OK 1/2 way in window  
OK middle okOK low multiple 2 places  
OK Pattern 63.OK  
OKOK  
OKOK  
OKOK  
OKOK  
OKOK  
OK

58%

2 loss moulds

221 1519 lot

press

To make up individual differences between blanks, must be local squozes.

High side of blank compressed after made into a record 027 } difference .010<sup>±</sup>  
 Low side ditto — 017#

See 5 pages ahead

5-11/16

Moore took 12 blanks with greatest variation in Calipers  
 Put all the low Calliper edges one way or side of faces.

#		Differ	After	averaging	differ	
1	237	229	008	215	208	007
2	247	223	024	218	210	008
3	243	223	020	223	216	007
4	240	228	012	209	206	003
5	245	223	022	218	209	009
6	249	221	028	213	210	003
7	241	227	014	214	211	003
8	250	227	023	220	210	010
9	245	237	008	219	202	017
10	247	231	016	219	208	011
11	242	227	015	221	207	014
12	250	212	038	213	202	011
	244 <sup>7</sup>	225 <sup>2</sup>	019	217	208	0086
	Load 2 piece 42		Push head to take care of 019	average		
	Blanks compressed 022 in going from blank to Record				on 004 in piston press will take care of 016, in the case 003 excess bearing then would have to care for 019 or 6 times as much.	

Reprint Press 41 - 1st Row

Terms at edge isolated  
OK

OK  
Terms at Edge isolated

OK  
OK

Terms  $\frac{1}{2}$ -separate notes -  $\frac{1}{2}$  from end music  
OK

OK  
OK

Spot/Spot/op Spot/Spot/op 2 diff places

Terms/Spot/op  $\frac{1}{2}$  way in music

OK  
OK

Spot no print (op) - (Mend) another space

Terms/Spot/op - another place: bare spot

OK  
Terms. Center of group 1" from end music

Long streak no print 13rd ~~unusable~~ <sup>unusable</sup>  
Terms ~~start~~ start of music.

25%

Irish Rose

1073 E

5-11/16

3 sets of 1519 Prints rejected  
on account of low spots & larger  
defects - Revarnished. 3 coats  
1 hour bake, Printed Reg 512  
Schedels Edge

Not Edged 2nd Row

Terms  $\frac{1}{2}$  from End Music  
OK  
Terms  $\frac{1}{2}$  way in music

Spot at start of music  
OK  
Terms at start of music

Spot at end of music  
OK  
Terms at end of music

Space/Spot/op 1" from start  
OK  
Terms  $\frac{1}{2}$  from start

Terms/Spot/op 1" from end

Terms/Spot/op 1" from end

Terms/Spot/op 1" from end

Terms/Spot/op 1" from end

Terms/Spot/op 1" from end

Terms/Spot/op end music

OK  
OK  
Terms/Spot/op end music

Terms/Spot/op end music

Terms/Spot/op end music

Terms/Spot/op end music

Terms/Spot/op end music

Terms/Spot/op end music

Terms/Spot/op end music

Terms/Spot/op end music

Terms/Spot/op end music

Carried forward

4th page forward

25%

Took in.



1074 E

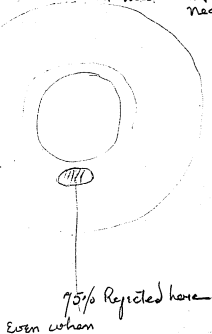
3 sets of 1519 Prints Edged  
to Regular Size <sup>Respect</sup> or shade smaller  
Revarnished 3 coats 1 hour  
bake -

Print sup schedule



Prints generally  
 this is trip of Reprints  
 nearly 3 way  
 60%

Reprints have  
 forms which  
 may appear  
 anywhere



1073 - Reprints 42 press  
 3rd Rose

OK  
 OK

- || space end music nearly  
 (space from end of music) that but nearly off
- || form last 1/2 of music
- || form streak at feed line -
- || form at start music - form in label
- || form last 1/2 music form end music
- || Barely at start music - also form start music another place  
 3 or 4 forms off - smaller form edge music
- || Barely forms middle music
- || Spoke at end music
- || form at start form at start, 2 places
- || OK
- || form start music
- || OK
- || spot, female like
- || OK
- || spot form | of - last end of music
- || OK  
 OK
- || spot | of men label spot | of end music  
 spot | of " " " "

16% 3rd Rose

Moore Selected 1519 blanks  
Word Variations in Calliper  
Loss Calliper on one side in  
press press 42

OK  
OK

OK  
OK

pieces at stand missing

OK

OK  
OK

OK  
OK

Com ramon  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

OK  
OK

8 3/4

Jockey -

The clearance in Ram of  
the press takes care  
of the difference  
on basis 0045 from  
centerline of 009 feet

1st Round  
Press 42

1076

- 1 (OK OK) *out top layer  
line pull off*
- 2 (OK OK) *Dont hear it  
on machine*
- 3 (OK OK)
- 4 (OK OK) *Bridge wall lips pulled  
out on in outlet  
opposite dills big area*
- 5 (OK OK) *Pull out of square edge  
Edge v v opt.*
- 6 (OK OK) *Fence*
- 7 (OK OK)
- 8 (OK OK)
- 9 (OK OK)
- 10 (OK OK) *Pull out Round 020*
- 11 (OK OK) *Pull out 020  
Pull out 020 3 at Edge*
- 12 (OK OK) *Same as 11*

66%

Load 3

Press 41

- (OK OK) *Pull out on feed line*
- (OK OK)
- (OK OK) *Pull out Dont sound*
- (OK OK) *some spec hand fcs  
dont sound*
- (OK OK) *Pull out press 3 round but  
dont OK*
- (OK OK) *Discard Edge*
- (OK OK) *Pull out OK dont sound*
- (OK OK) *Pull out Discard hear*
- (OK OK) *Pull out (Dont sound)*
- (OK OK) *Pull out*
- (OK OK) *dent on Reason*
- (OK OK) *Pull out big area*
- (OK OK) *" " Sound*
- (OK OK)
- (OK OK)
- (OK OK)

66%

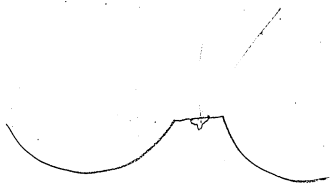
Load 2

1076 -

1519 -

Two rounds req schedule  
After Cold, take off all  
press & leave them 5 minutes  
to get them still colder

Cooling More dont  
Stop Pull Outs,  
may help some



10/60

5

$$\begin{array}{r} 20000 \\ 452 \overline{) 90000} \\ \underline{9040} \\ 9640 \\ \underline{9640} \\ 0 \end{array} \quad (221)$$

$$\begin{array}{r} 8 \overline{) 221} \\ \underline{16} \\ 61 \\ \underline{56} \\ 5 \end{array}$$

[ITEM(S) FOUND IN BOOK]

Reexamined

Nov 26/16

7 months after

1065-

{1 V fine -  
2 good -

{3 Y fine  
4 fine - light RO -

{5 - Y fine -  
6 Y fine light RO

{7 fair, bad start,

{8 soft - continuous light RO

Much better than present  
surfaces

[ITEM(S) FOUND IN BOOK]

1063 = Retested 7 months  
after Nov 27/1916

- (1 = V surface -
- (2 good " RO
- (3 fair to good -
- (4 good but RO
- (5 good general - but RO Trashed Glout
- (6 " " no RO
- (7 good general - RO
- (8 fair, crackly - showed mottled
- { 9 hard - RO
- { 10 fair -

Generally better than  
we make now, Nov 27/16



[ITEM(S) FOUND IN BOOK]

Reexamined

Nov 27/16

1067 =

7 months after

{1 V fine -  
2 good - slide RO

{3 good  
4 good slide RO

{5 fine -  
6 fine -

{7 fine - slide RO  
8 fair to good

probably 2 coals

[ITEM(S) FOUND IN BOOK]

1058 - 3 Coats  
1 hour bake between

1	fair - sharp steamy	- RO
2	"	"
3	"	"
4	Very Loud Continuous	-
5	Very Loud	"
6	Loud	"
7	Loud	RO
8	Loud	RO -
9	fair -	RO
10	Loud -	- RO

found 1 with radial  
cracks to nucleus starting at  
small V<sup>s</sup> at edge

Two ~~more~~ much smaller  
sketches of similar nuclei. I mean

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**END**

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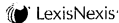
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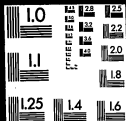
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